

POLICY HEALTH IMPACT ASSESSMENT FOR THE EUROPEAN UNION: FINAL PROJECT REPORT

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Executive Summary

Background/Aims

Article 152 of the Treaty of Amsterdam (EC, 1999) made explicit the commitment of the European Union (EU) to ensure that human health is protected in the definition and implementation of all Community policies and activities. Also, the proposal for a decision by the European Parliament and Council in the field of public health (Commission of the European Communities, 2002a) included objectives to 'support the development of health impact assessment methodologies and other relevant tools' (Commission of the European Communities, 2002a, objective 4.2) and to 'support pilot projects on the health impact of Community policies and actions' (Commission of the European Communities, 2002a, objective 4.3). A call for proposals by the Health and Consumer Protection DG in (2001/c 147/06) sought to develop work on Health Impact Assessment (HIA) in the EU.

IMPACT (The International Health Impact Assessment Consortium) successfully co-ordinated a bid with partners from Germany, Ireland and the Netherlands to develop and test a HIA methodology for use by the European Community and its institutions in EU policy development.

Methods

Search for existing methodologies

A search strategy was developed and used to locate secondary data on HIA methodologies and methods used in selected EU Member States and other countries. It defined the scope of the search, the data sources and locations, methods, search terms and inclusion and exclusion criteria. This provided a framework to ensure a consistent approach between the partners. The search yielded over 114 contacts in 19 countries with more than 160 HIA articles, reports and case studies retrieved for content analysis.

Critical Review of HIA Material through Classification Framework

The collected HIA case studies, methodologies and methods were critically reviewed in order to select appropriate methods to adapt for use. A classification framework defining typology and quality criteria was developed to aid in this selection.

Synthesis of Generic Methodology

The first draft EU Policy HIA ('EPHIA') methodology was then developed by synthesising HIA 'features' selected by the research partners in the critical review.

EU policy selection

An overview of EU policy types, levels and activities was undertaken, as well as a mapping of the decision-making process in the EU. An EU policy was then chosen to test the draft EPHIA methodology. The partners agreed on a set of selection criteria, the most important of which were timing (i.e. a policy that would enable a prospective HIA) and the availability of evidence to demonstrate the links between the policy area and health outcomes. The selection criteria were applied to EU policies in the 2002 and 2003 work programmes. A short-list of 10 policies were identified and submitted to DG SANCO in December 2002 and from this, the project partners selected the European Employment Strategy.

Conducting Pilot HIAs

To test the draft methodology, the partners conducted pilot HIAs in their own countries and an EU-wide HIA. Some aspects of these pilots were similar including national policy analysis, a review of the employment and health evidence-base and community profiling. A core health and employment related indicator set common to all partners was identified and corresponding data collected for population profiles. Supplementary Member State data was also collected.

Different partners also experimented with different aspects of the methodology. For example, in Germany the partners developed mathematical models illustrating potential future health impacts of increased job flexibility. In the UK partners conducted a series of in-depth interviews to explore stakeholders views on the links between employment and health. Partners in the Netherlands and Ireland assembled participative stakeholder groups of employment experts to provide guidance and to raise awareness of HIA.

Executive summaries of all of the pilot HIAs are included in this report (section 4) and full reports are provided separately. They provide an illustration of how EPHIA methodology can be practically applied.

Evaluating EPHIA Methodology

The partners evaluated the process of conducting the HIA pilots. The objective was to methodically review all aspects of the draft methodology in light of the experience of conducting the pilots, assess its adequacy and refine where necessary. An evaluation framework based around the criteria of effectiveness, practicality, transparency and equity was developed and applied. All aspects of the draft methodology were considered in detail. Some of the most important revisions to the methodology included:

Ensuring a practical orientation

The refined version is more practically orientated with examples of how to conduct aspects of the methodology to help demonstrate ease of use, such as data collection, participatory methods and health impact analysis.

Emphasising flexibility

The flexible nature of the methodology and the ability to select appropriate methods was emphasised to prevent misconceptions that it was necessary to implement all aspects of the methodology.

Focus on ease of use

To enable decision-makers in the European Commission with limited time and resources to undertake HIAs quickly, a 'Rapid HIA procedure' was added to the methodology.

Addressing the complexity of European policy making

Material was added concerning the potential variety of health impacts in different countries and regions of Europe. However it is recognised that this dimension needs further work.

Results and Concluding Remarks

Following comprehensive piloting, evaluation and refinement, a robust, flexible and pragmatic methodology has been produced for DG SANCO, which will assist policy makers in undertaking or commissioning HIAs. This EPHIA methodology is applicable for conducting HIAs relatively quickly and also for undertaking detailed assessments.

The project has also produced a completed HIA of a major EU policy and a detailed description of how the methodology was applied. This provides a practical demonstration of what the EPHIA methodology can achieve when assessing complex EU policies and an example for EPHIA practitioners in DG SANCO to consult in the future. It also provides a wealth of material for wider dissemination to raise awareness and interest in EPHIA in Member State countries and internationally.

Finally, the reports of the pilot HIAs used to test the methodology provide detailed high quality assessments of the potential health impacts of the European Employment Strategy and will be of interest to European policy makers, including DG Employment & Social Affairs.

The EPHIA methodology is described in section 6. An independent version of this chapter is published in English, Dutch, French and German.

1 Introduction

1.1 About this report

This final report of the 'Policy Health Impact Assessment (HIA) for the European Union' project (the Project) describes:

- the background, rationale and objectives of the Project (section 1),
- how the generic HIA methodology was developed (section 2),
- how an EU policy was selected for piloting the HIA methodology (section 3),
- the findings from the five pilot HIAs (section 4),
- the evaluation of the pilot HIAs and the refining of the HIA methodology (section 5),
- the final version of the European Policy HIA ('EPHIA') methodology (section 6),
- implications for implementing EPHIA at European policy level (section 7).

The report is for the Project sponsors, DG SANCO, but may also be of interest to a wider audience within the European Commission, Member States and beyond. In addition to this report, the EPHIA methodology (section 6) is also available as a stand-alone document. The five pilot HIAs are in separate reports.

1.2 Background to the Project

HIA in Europe is a relatively new development and is most developed in North Western Europe. This section provides an overview of some national HIA activity. In the United Kingdom, the first formal prospective HIA was conducted in 1994 on the proposed second runway at Manchester Airport (Will et al, 1996) and used a methodology based on Lalonde's health fields (Lalonde, 1974). This was followed by a series of local HIA case studies in Merseyside, UK, starting in 1996. The case studies used a methodology that built on the Manchester Airport approach and also on environmental impact assessment, incorporating a systematic process for the identification of potential health impacts. The case study series was critically reviewed and culminated in the development of a new HIA methodology, 'The Merseyside Guidelines for Health Impact Assessment' (Scott-Samuel et al, 1998).

In the late 1990s England, Scotland, Wales and Northern Ireland each developed their own public health strategies (for example, Department of Health, 1999) with the social, economic and environmental determinants of health clearly acknowledged and a commitment to tackling wider causes of ill health. As such, all four strategies referred to the necessity of HIAs of national and local policies and projects, to ensure that these policies maximised health improvement. At the same time the 'Independent Inquiry into Inequalities in Health' (Acheson et al, 1998) also recommended that '...as part of health impact assessment, all policies likely to have a direct or indirect effect on health should be evaluated in terms of their impact on health inequalities...'. Since then, The Welsh Assembly (National Assembly for Wales, 1999) have published their guide to HIA, and have established a HIA unit and strategy, which has spearheaded HIAs on various policies including the Objective One programme in South Wales. The Scottish Needs Assessment Programme (SNAP, 2000) also undertook case studies on transport and housing strategies as well as developing recommendations for HIA in Scotland. In 2000 the Department of Health in England funded various HIA capacity building programmes across the country, which focused on different aspects of HIA, such as HIA training, HIA case studies, HIA methods and tools. Most of these have now concluded and regional expertise in HIA is growing.

An extensive baseline audit of HIA activity was conducted in Ireland and Northern Ireland in 2001 (Institute of Public Health in Ireland, 2001). This identified the importance of high-level Government support and resourcing. Significantly, within the new national health strategy in the Republic of Ireland, 'Quality and Fairness: A Health System for You' (Department of Health & Children, 2001), the Government committed itself to the

introduction of HIA as part of the public policy development process. Various pilot HIAs are being undertaken in Ireland, North and South and the Institute of Public Health has developed HIA tools and is building capacity and networks for HIA in the island of Ireland.

Activity in the Netherlands has been primarily at the national policy level, and began in 1992. The policy document 'Prevention Policy for Public Health' (which was sent to Parliament) mentioned HIA as a tool for intersectoral policy, especially addressing socio-economic inequalities in health (State Secretary of Welfare, Health and Culture, 1992). To explore the possibilities for HIA, the Ministry of Health (MoH) commissioned an expert report in 1993 (Roscam Abbing et al, 1995). This report recommended starting experimental screening of national policy proposals for health impacts. Following this, the Minister of Health recommended a methodology for the 'estimation of impacts of policy measures on the health status' of the Dutch population (Gezond, 1995). This commenced in 1996 and since then over 20 experimental HIAs on national policies have been undertaken on various topics including tobacco legislation and housing policy. A screening methodology and checklist were also developed to identify health-relevant policies during the early planning stages. In 2000, the MoH advocated the implementation of HIA as part of healthy policy-making at national, local and transnational level, particularly in youth health, socio-economic inequalities, safety and environment and lifestyle.

In Germany, HIA was first introduced in the late 1980s. The Ministry of Research and Technology funded a HIA research and development project in 1992; project results included a generic HIA model, several case studies and a book publication. HIA is now required by law in several German states. German HIA activities are usually associated with Environmental Impact Assessment (EIA) procedures at a project level. In 2001 the first national HIA workshop was held in the context of the National Environmental Health Action Plan (Welteke & Fehr, 2001). This was seen as a starting point for an alliance between EIA and HIA professionals.

At EU level, Article 152 of the Treaty of Amsterdam (EC, 1999) defined the need to ensure the protection of human health in the development and implementation of all community policies. To support this, the Council of Ministers resolved to establish procedures to monitor the impact of Community policies and activities on public health and health care. The EC Public Health Strategy (EC, 2002) reinforced this commitment through the objectives to develop and use HIA methodologies for this purpose.

The World Health Organisation's (WHO) European Centre for Health Policy (ECHP) has drafted a discussion paper on HIA as a tool for intersectoral collaboration on health policy development (Lehto & Ritsatakis, 1999), hosting a HIA email discussion group, and developed papers on HIA-related topics. In addition to WHO HIA work in Brussels, the new Health For All strategy, 'Health 21 - health for all in the 21st century' (WHO, 1998) under target 14 identifies the need for HIA to '...be applied to any social and economic policy or programme, as well as development projects, likely to have an effect on health.' It challenges European governments to create the conditions to facilitate HIA of public and private sector policies and programmes. A programme of HIA pilots across European Cities is being undertaken during 2004 and 2005 (WHO Centre for Urban Health, Copenhagen, 2003). The WHO European Centre for Environment and Health (ECEH) in Rome has also been active in HIA particularly concerning transport and physical activity strategies, methodological developments, and capacity building. More recently WHO Headquarters (Geneva) have facilitated HIA developments in Europe and internationally including developing a HIA database, commissioning work to review the evidence on various policy topics to support healthy policy making, and contributing to the Kiev Protocol on Strategic Environmental Assessment (SEA).

The above underlines policy drivers for HIA within Europe, as well as various enabling factors. Since the commencement of the Project, HIA has been put into a legislative framework, providing significant impetus for HIA implementation. The Kiev (SEA)

Protocol (UNECE, 2003) has been ratified by 37 United Nations Economic Commission for Europe signatories including the European Community, and comes into force in June 2004. It will require its parties to evaluate the environmental consequences of their official draft plans and programmes. In addition it will require the effects on human health of proposed projects, plans, programmes, policies and legislation to be considered. SEA will be undertaken much earlier in the decision-making process than EIA, and it is therefore seen as a key tool for sustainable development as well as for health improvement. The Protocol also provides for extensive public participation in government decision-making in numerous development sectors.

1.3 HIA and other impact assessments

HIA is one of many types of impact assessment (IA), for example environmental impact assessment, economic impact assessment, and social impact assessment. Developments in the EC (EC, 2002) and elsewhere have sought to harmonise impact assessments, and in particular the tools used (generally screening checklists). The EC introduced two levels of IA in 2003 - a Preliminary Assessment and Extended Assessment. All EC policies in the annual work programme have to conduct a Preliminary Assessment and produce an Impact Assessment Statement. An Extended Assessment is undertaken when the impacts are deemed to be significant. The Project has borne these developments in mind as it has progressed and refers to their potential relationship to HIA.

1.4 About the Project

A call for proposals by the Health and Consumer Protection Directorate General sought to further develop HIA in the EU. IMPACT, the International Health Impact Assessment Consortium at the University of Liverpool (UK), successfully co-ordinated a bid with partners from Germany, Ireland and the Netherlands to undertake this work. The 'Policy HIA for the EU' project proposed to assess the health impacts of a selected EU policy by:

- developing a standard generic methodology for HIA of EU policies and activities,
- applying this HIA methodology to selected EU policy at both EU and Member State levels,
- actively disseminating the findings and the lessons learnt throughout Europe by means of seminars, publications and high level briefings.

The specific objectives of the Project were:

- to search for, identify, collect and review HIA methodologies and methods,
- to develop a generic policy HIA methodology ,
- to pilot and refine the new HIA methodology,
- to identify, screen and select an EU policy for HIA,
- to apply the new HIA methodology to the selected EU policy ,
- to disseminate the findings from the HIAs and the lessons learned about HIA for EU policy to EU policy-makers and Member States.

At all stages a systematic and rigorous approach was taken, to maximise the reliability of the HIA methodology and ultimately the validity of the impacts identified.

The Project partners met face-to-face twice a year and had monthly telephone conferences. In addition regular informal contacts were made through email and telephone; specific tasks for both partners and coordinators were defined. The partners were supported with valuable information and advice. An Advisory Group, which consisted of WHO, European Public Health Alliance (EPHA) and national health ministry representatives supported the partners, and provided valuable information and advice. The Advisory Group also met twice yearly in different locations to which additional co-opted members were also invited.

2 Development of the EU Policy HIA Methodology

2.1 Introduction

This section describes how the original EU Policy HIA methodology was developed, including the:

- HIA methodology search strategy,
- HIA classification framework,
- HIA selection criteria.

2.2 HIA methodology search strategy

The starting point for the development of the HIA methodology was the collection and review of existing HIA methodologies, methods and tools. This was targeted at EU Member States and also at other countries where HIA was known to be well established or 'institutionalised'. It was not designed as a comprehensive audit of HIA methodologies across the EU.

The following countries and organisations were selected for a search of HIA methodologies on the basis of known HIA activity at national or regional level over the last 5 years:

Table 1 Countries, Regions and Organisations 'searched' for HIA methodologies

Countries	Regions	Organisations
England Wales Northern Ireland/ Ireland Scotland Germany The Netherlands Sweden Finland France Denmark Thailand Australia New Zealand	Eastern Europe North America	WHO (Brussels, Copenhagen, Geneva, Rome) European Commission European Network of Health Promotion Agencies

The search was divided between the partners and each undertook to search a range of data sources for both published and unpublished HIA documents in English; these included HIA methodologies, policies, methods, tools, and case studies. Sources of data included HIA-specific websites, national health ministry websites and HIA groups including virtual groups (EHP-HIA¹, HIA-net², HIA/IAIA³, academic databases). With personal inquiries a snowballing approach was used to identify further contacts. For searches of electronic databases undertaken by IMPACT, defined search terms were used. The inclusion/exclusion criteria used related to a broad definition of HIA:

The systematic application of defined methods and procedures to assess the effects of *non-health care* policies, programmes or projects on the health of defined populations *before (prospective, ex ante)* or *during (concurrent)* the policy's implementation.

¹ EHP = European Centre of Health Policy (WHO Brussels)

² HIA-net = UK HIA group

³ IAIA = International Association for Impact Assessment

The search results included 114 contacts made in 19 countries. More than 160 HIA documents were retrieved for content analysis. This was reported to the Advisory Group for comments.

2.3 HIA Classification Framework

Once HIA documents that met the inclusion/exclusion criteria were retrieved the documents were classified against defined HIA criteria. The criteria were defined as follows:

Table 2 Typology criteria

Criterion	Examples
Policy/project topic	physical environment, socio-economic environment, individual or family focussed, multidimensional
Analysis type	policy, programme, project
Analysis level	international, national, regional, local
Commissioner	public, private or voluntary (NGO) sector.
HIA methodological perspective	mainly qualitative, mainly quantitative, 'mixed' (includes qualitative and quantitative dimensions), health protection, health improvement/gain
HIA timing	prospective (ex ante HIA, HIA at policy planning stage), concurrent (HIA at policy revision stage), retrospective (post ante HIA, HIA at policy conclusion stage)
HIA depth	screening, rapid, comprehensive/in-depth
HIA methods	policy analysis, profiling, literature review, key informants/stakeholders analysis, quantification of health determinant/risk factor change, quantification of health outcomes, health economics analysis, assessment of evidence
HIA tools and tool dimensions	tools: matrices, causal pathway diagrams, summary measures of population health; tool dimensions: 'strength of evidence' assessment, 'population and sub-population group' impact assessment (differential distribution), scale, 'likelihood (probability) of impact' assessment, latency, prioritisation of impacts, HIA and health inequalities - explicit assessment of health impacts on different population or vulnerable groups
HIA and public involvement	explicit involvement of community in HIA process as commissioners, assessors or stakeholders
HIA procedures	screening, terms of reference, steering group, iterative assessment process, negotiate recommendations, evaluate HIA (effective in influencing decision-making, efficacy in predicting/assessing health impacts)

Table 3 Quality criteria

Criterion	Examples
Transparency	explicit, open description of methods and procedures
Objectivity	impartial assessment of all impacts and development of recommendations (i.e. without prejudice or favour of any groups with vested interest in the policy etc)
Robust	detailed design, rigorous methods, validated tools/measures
Model reliability and validity	evaluation of methodology indicates consistency of predicted impacts under similar conditions and effectiveness in predicting impacts
Evidence of healthy policy building	evaluation of methodology indicates that it successfully influences decision-making
HIA assessors	background, experience
Cost effectiveness	

2.4 HIA methodology selection criteria

The classification framework criteria were then prioritised and included:

- evidence of healthy policy building,
- model reliability and validity,
- robust,
- analysis type and level - must be capable of being applied to EU and national policy,
- HIA timing - must be capable of being applied prospectively,
- HIA depth - must be capable of being adapted to different depths,
- HIA methodological perspective - should be 'mixed' that is use qualitative and quantitative approaches,
- HIA and health inequalities.

These prioritised criteria were then used to select particular methodologies, methods, and tools for synthesis into the first version of the EU Policy HIA methodology.

2.5 The synthesis

Each partner identified HIA procedures, methods and tools by using the classification framework and then recommended that they be included in the EU Policy HIA methodology. These were synthesised by the Project Co-ordinator into a first draft methodology, amended by the Project partners, and commented on by the Advisory Group. The first version EU Policy HIA methodology was then ready for piloting. The final version of EPHIA can be found in section 6.

3 European Policy Selection

3.1 Introduction

This section describes the process by which an EU policy was selected to pilot the EU Policy HIA methodology on; in particular the:

- EU policy overview,
- EU policy selection process and criteria.

It also provides a summary of the selected EU policy: the European Employment Strategy (EES).

3.2 EU policy overview

To enable a selection of a policy for the HIA pilots, it was important to get an overview of the different EU policy types, levels and activity areas. This EU policy overview was conducted simultaneously with the HIA methodology search. In addition to this overview the decision-making process for EU policy development was reviewed.

The four levels of EU policy - regulations, directives, decisions and opinions/recommendations - were examined. From this analysis, regulations were identified as the preferred policy level for HIA. This was because they apply to the Community as a whole without action by Member States. The time to undertake the HIA in the policy development cycle was also considered. The drafting of the Commission's legislative work programme in the spring of every year was decided as the most appropriate time to select policies for HIA.

3.3 EU policy selection process and criteria

The next stages in the EU policy selection process were the development, prioritisation and application of policy selection criteria. The criteria selected were as follows:

- **evidence** - there needs to be an empirical knowledge basis to support the HIA; data relevant to the policy topic needs to be available and accessible,
- **timing** - policy development stage (major proposals submitted as part of the Annual Policy Strategy and Work Programme cycle), and policy implementation/target date (exposure - 10 years or less),
- **typology** - policy topic and level (regulations, directives or decisions),
- **complexity** - medium level complexity to adequately test methodology,
- **topic of public interest** - topical but not controversial,
- **relevance** - the topic should be relevant to all Member States.

Once the policy selection criteria were agreed, these were applied to the policies identified in the 2002 work programme annex as well as to those policies in the 2003 work programme that had been identified for Extended Assessment. It was agreed that for the purpose of the pilot the most important criteria were timing - the policy should not be one that has already been implemented - and evidence - there should be a recognised evidence-base between the proposed policy and public health outcomes. A short-list of 10 policies were identified and submitted to DG SANCO, in December 2002, to explore their suitability as candidates for the HIA pilots. From this, the European Employment Strategy was selected to pilot the EU Policy HIA methodology on.

3.4 Summary of the European Employment Strategy

3.4.1 Background

The European Employment Strategy (EES) was launched following the Luxembourg Jobs Summit in November 1997. An evaluation of the first five years carried out in 2002 identified major challenges and issues for the future of the EES. It also emphasised the need to revamp the EES and realign it more closely to the Lisbon Strategy.

3.4.2 The EES: a key component of the Lisbon Strategy

The Lisbon European Council (March 2000) set itself a new strategic goal for the next decade:

'...to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion.'

The strategy was designed to create the right conditions for full employment and to strengthen cohesion by 2010. The Council considered that the proposed interventions would, by 2010:

- increase the EU employment rate to 70%,
- increase the proportion of women in employment to over 60%.

The Stockholm European Council (March 2001) added three additional targets:

- increase the EU employment rate to 67% by 2005,
- increase the proportion of women in employment to 57% by 2005,
- increase the proportion of older people in employment to 50% by 2010.

The Barcelona European Council (March 2002) confirmed that full employment was the overarching goal of the EU and called for a reinforced EES in an enlarged EU.

3.4.3 Co-ordination of Employment Policies at EU level

The EES is designed as the main tool to give direction to and ensure co-ordination of the employment policy priorities for Member States at EU level. The Luxembourg European Council initiated 'the Luxembourg Process' as a means of ensuring effective co-ordination of national employment policies at EU level. This consists of the following elements:

Employment Guidelines

These are an annual agreement on a series of common objectives and targets for employment policy by the European Council (Heads of State & Government), following recommendations from the Commission, consultation with the European Parliament and Committees. In March 2003, The Council agreed to:

- limit the Guidelines in number,
- define appropriate targets,
- consider the Broad Economic Policy Guidelines (BEPGs) and the internal market strategy in conjunction with the employment guidelines in a 'Guidelines Package',
- give the 'Guidelines Package' a three year perspective.

National Action Plans

Each Member State draws up an annual National Action Plan describing how these Guidelines will be put into practice nationally.

Joint Employment Report

The Commission and Council jointly examine each NAP and present a Joint Employment Report. The Commission presents a new proposal to revise the Employment Guidelines accordingly the next year. The Council also agreed to receive an 'Implementation

Package' every January, which will report on the conclusions of the review of the implementation of EU policy guidance on BEPGs, the Joint Employment Report and the Internal Market.

Recommendations

The Council may decide, by qualified majority, to issue country specific recommendations in response to their NAP, as was the case in 2003.

3.4.4 The Employment Guidelines

The Employment Guidelines (EC, 2003) state that Member States should equally foster the following three overarching objectives:

- full employment,
- improving quality and productivity at work,
- social cohesion and inclusion.

Full employment

Member States should aim to achieve full employment by implementing a comprehensive policy approach incorporating demand and supply side measures. Policies shall contribute towards achieving on average for the European Union:

- an overall employment rate of 67% in 2005 and 70% in 2010,
- an employment rate for women of 57% in 2005 and 60% in 2010,
- an employment rate of 50% for older workers (55 to 64) in 2010.

Improving quality and productivity at work

Increasing employment rates must go hand in hand with raising overall labour productivity. Quality at work can help increase labour productivity and the synergies between both should be fully exploited. This represents a specific challenge for social dialogue.

Social cohesion and inclusion

Economic and social cohesion should be promoted by reducing regional employment and unemployment disparities, tackling the employment problems of deprived areas in the European Union and positively supporting economic and social restructuring.

Priority action

There are 10 priority action areas contained within the 2003 Employment Guidelines. In addition there is gender mainstreaming applies to each priority area:

1. Active and preventative measures for the unemployed and inactive
2. Job creation and entrepreneurship
3. Address change and promote adaptability and mobility in the market place
4. Promote development of human capital and lifelong learning
5. Increase labour supply and promote active ageing
6. Gender equality
7. Promote the integration of and combat the discrimination against people at a disadvantage in the labour market
8. Make work pay through incentives to enhance work attractiveness
9. Transform undeclared work into regular employment
10. Address regional employment disparities

Guideline 1: Active and preventative measures for the unemployed and inactive

Under this action Member States are required to develop and implement active and preventative measures for the unemployed and the inactive designed to prevent them entering into long-term unemployment. They are also to promote the sustainable integration of unemployed and inactive people into employment.

Specifically Member States are to ensure that:

- every unemployed person is offered a new start before reaching six months of unemployment in the case of young people and 12 months of unemployment in the case of adults in the form of training, retraining, work practice, a job, or other employability measure, combined where appropriate with ongoing job search assistance,
- by 2010, 25% of the long-term unemployed participate in an active measure in the form of training, retraining, work practice, or other employability measure, with the aim of achieving the average of the three most advanced Member States.

Guideline 2: Job creation and entrepreneurship

This action focuses Member States on increasing jobs (quantity and quality) by supporting innovation, entrepreneurship, investment capacity and supportive business environments. Sector developments include research and development, services and new enterprises.

Supported by the process of benchmarking of enterprise policy and the implementation of the European Charter for Small Enterprises, policy initiatives will focus on:

- simplifying and reducing administrative and regulatory burdens for business start-ups and small and medium-sized enterprises (SMEs) and for the hiring of staff, facilitating access to capital for start-ups, new and existing SMEs and enterprises with a high growth and job creation potential,
- promoting education and training in entrepreneurial and management skills and providing support, including through training to make entrepreneurship a career option for all.

Guideline 3: Address change and promote adaptability and mobility in the market place

This action tasks Member States with facilitating worker and business flexibility and adaptability to change, whilst protecting the security and interests of workers in particular via the social partners.

Member States are required to review and, where appropriate, reform overly restrictive elements in employment legislation that affect labour market dynamics and the employment of those groups facing difficulty accessing the labour market, develop social dialogue, foster corporate social responsibility, and undertake other appropriate measures to promote:

- diversity of contractual and working arrangements, including arrangements on working time, favouring career progression, a better balance between work and private life and between flexibility and security,
- access for workers, in particular for low skill workers, to training,
- better working conditions, including health and safety; policies will aim to achieve in particular: a substantial reduction in the incidence rate of accidents at work and of occupational diseases,
- the design and dissemination of innovative and sustainable forms of work organisation, which support labour productivity and quality at work,
- the anticipation and the positive management of economic change and restructuring.

Guideline 4: Promote development of human capital and lifelong learning

This action requires Member States to implement lifelong learning strategies by developing quality education and training systems so that the skills-needs of the future can be met in a knowledge-based society.

In accordance with national priorities, Member State policies will aim in particular to achieve the following outcomes by 2010:

- at least 85% of 22-year olds in the European Union should have completed upper secondary education,
- the European Union average level of participation in lifelong learning should be at least 12.5% of the adult working-age population (25 to 64 age group).

In addition, policies will aim to achieve an increase in investment in human resources.

Guideline 5: Increase labour supply and promote active ageing

Through this action Member States will promote an adequate availability of labour and employment opportunities to support economic growth and employment, taking into account labour mobility, as indicated in guideline 3.

In particular, they will:

- increase labour market participation by using the potential of all groups of the population, through a comprehensive approach covering in particular the availability and attractiveness of jobs, making work pay, raising skills, and providing adequate support measures,
- promote active ageing, notably by fostering working conditions conducive to job retention such as access to continuing training, recognising the special importance of health and safety at work, innovative and flexible forms of work organisation and eliminating incentives for early exit from the labour market, notably by reforming early retirement schemes and ensuring that it pays to remain active in the labour market; and encouraging employers to employ older workers.

In particular, policies will aim to achieve by 2010 an increase of five years, at European Union level, of the average exit age from the labour market (estimated at 59.9 years in 2001).

Guideline 6: Gender equality

Member States will, through an integrated approach combining gender mainstreaming and specific policy actions, encourage female labour market participation and achieve a substantial reduction in gender gaps in employment rates, unemployment rates, and pay by 2010.

Member States should remove disincentives to female labour force participation and strive to provide childcare by 2010 to at least 90% of children between three years old and the mandatory school age and at least 33% of children under three years of age.

Guideline 7: Promote the integration of and combat the discrimination against people at a disadvantage in the labour market

Member States will foster the integration of people facing particular difficulties on the labour market, such as early school leavers, low-skilled workers, people with disabilities, immigrants, and ethnic minorities, by developing their employability, increasing job opportunities and preventing all forms of discrimination against them.

In particular, policies will aim to achieve by 2010:

- an EU average rate of no more than 10% early school leavers,
- a significant reduction in each Member State in the unemployment gaps for people at a disadvantage, according to any national targets and definitions,
- a significant reduction in each Member State in the unemployment gaps between non-EU and EU nationals, according to any national targets.

Guideline 8: Make work pay through incentives to enhance work attractiveness

This action directs Member States to reforming financial incentives with a view to making work attractive and encouraging men and women to seek, take up and remain in work. In this context, Member States should develop appropriate policies with a view to reducing

the number of working poor. They will review and, where appropriate, reform tax and benefit systems and their interaction with a view to eliminating unemployment, poverty and inactivity traps, and encouraging the participation of women, low-skilled workers, older workers, people with disabilities and those furthest from the labour market in employment.

The action of this guideline is key to ensure adequate social protection but to monitor replacement rates and benefit duration, ensuring effective benefit management coupled with job search.

In particular, policies will aim at achieving a significant reduction in high marginal effective tax rates by 2010 and, where appropriate, in the tax burden on low paid workers, reflecting national circumstances.

Guideline 9: Transform undeclared work into regular employment

Member States should develop and implement broad actions and measures to eliminate undeclared work, which combine simplification of the business environment, removing disincentives and providing appropriate incentives in the tax and benefits system, improved law enforcement and the application of sanctions. They should undertake the necessary efforts at national and EU level to measure the extent of the problem and progress achieved at national level.

Guideline 10: Address regional employment disparities

Member States are tasked with reducing regional employment and unemployment disparities by implementing broad approaches. The potential for job creation at the local level, including in the social economy, should be supported and partnerships between all relevant actors should be encouraged.

Member States will:

- promote favourable conditions for private sector activity and investment in regions lagging behind,
- ensure that public support in regions lagging behind is focused on investment in human and knowledge capital, as well as adequate infrastructure (these are in line with the BEPGs-guidelines 18 and 19).

3.4.5 Governance, Partnership and Financial Resources

Governance

Member States are charged with ensuring effective implementation of the Guidelines within all their regions and locally. This reflects the stated 'strong political commitment from all parties concerned'. However, whilst the Guidelines have been adopted and Member States are requested 'to take them into account in their employment policies', it is recognised that there is no legal compulsion for Member States to do this.

Partnership

Social partners at national level are recommended to be involved to ensure the effective implementation of the Employment guidelines particularly concerning Guidelines 3 to 8.

At European level social partners are also encouraged to support national partners. At inter-professional levels they are to report on their contribution to the Guidelines implementation, whilst at sector level they will report on their respective actions.

Financial resources

The Guidelines state that '... the potential of the Cohesion and Structural Funds and the European Investment Bank should be fully exploited.' (Council of the European Union, 2003). European funding through the Community is potentially through European Social Fund (ESF) as well as Structural Funds. However primarily the Guidelines will be implemented by national funding.

4 European Employment Strategy HIA Pilots

4.1 Introduction

This section reports on the findings in the form of the Executive Summaries from the European Employment Strategy HIA pilots undertaken at Member State level in:

- Germany
- Ireland
- The Netherlands
- United Kingdom.

A HIA pilot was also conducted at EU level and the results of this are also presented.

The full HIA pilots are provided in separate reports.

4.2 European Employment Strategy HIA in Germany: Executive Summary

Background/Aims

Health Impact Assessment (HIA) is a "combination of procedures, methods and tools by which a policy, programme 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". The Treaty of Amsterdam made explicit the commitment of the European Union to ensure that human health is protected in the definition and implementation of all Community policies and activities. However there is presently no accepted methodology for assessing the impacts of EU policies on health within the Community. Therefore the EC funded a project (Policy Health Impact Assessment for the European Union) to develop a generic HIA methodology to assess the potential health impacts of European policies.

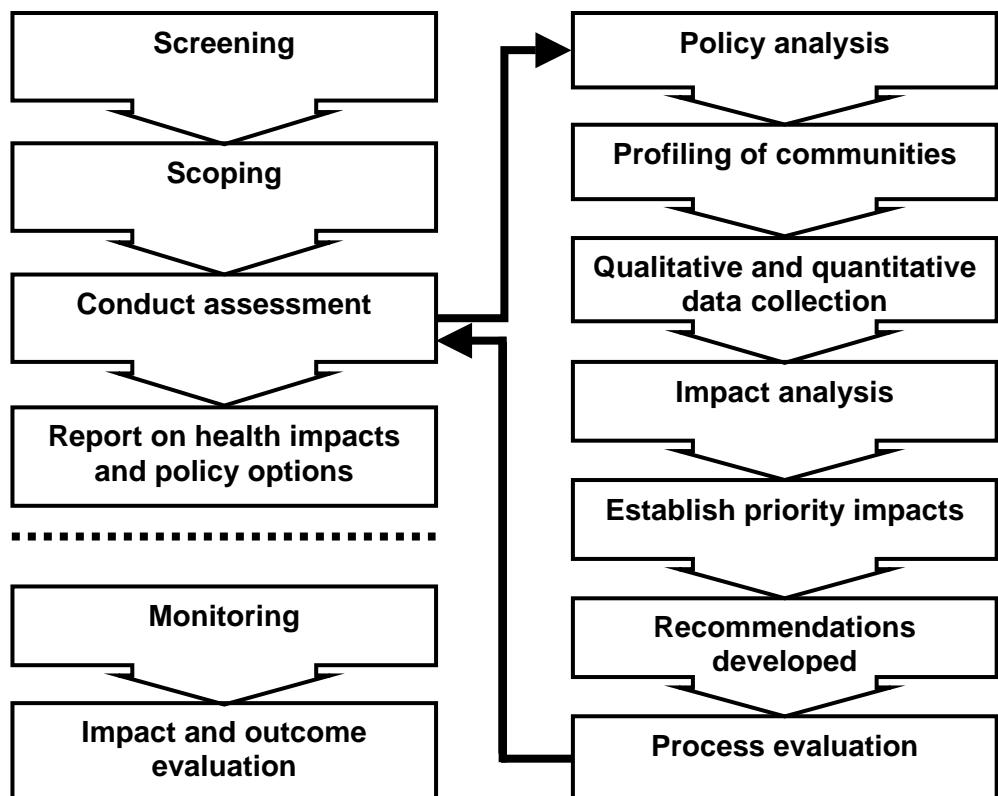
The project developed the European Policy Health Impact Assessment methodology (EPHIA). EPHIA was then piloted at Member State and EU level on a selected EU policy in order to test out and refine the methodology. The main aim of this HIA was to pilot the EPHIA methodology in Germany.

Methods

The EPHIA methodology is a combination of procedure and methods (see figure 1). After the selection of the European Employment Strategy (EES) as the policy to pilot the methodology on, a scoping process was carried out whereby the HIA was planned. In this step in the EPHIA methodology terms of reference were developed outlining the scope, intended outputs, resources needed and timetable. A steering group was convened.

The actual assessment began with an analysis of the EES itself and related policy. Literature related to the implementation of the EES in Germany was also examined. In addition to understanding the content of the EES and how it functions, the policy analysis was intended to identify elements of the policy that were of particular relevance to the German situation.

Figure 1: European Policy Health Impact Assessment Methodology (EPHIA)



A common set of indicators were identified as a basis for developing a profile to provide a picture of the health and socio-demographic context of the policy in Germany. This enabled a better understanding of the potential health impacts and the particular population groups that may be affected. European level data was accessed through EUROSTAT. For German specific data the Federal Statistical Office databases such as Genesis were searched as well as data from other research institutes.

Evidence on the potential effects of the EES on health determinants and outcomes was gathered by carrying out a literature search and analysis. Alongside literature published in peer reviewed journals and books, publications from research institutes that specialise in employment policy were an important source of information. For example, European level research was accessed at the European Foundation for Living and Working Conditions and particularly German specific information was located at the state-funded Institute for Employment Research.

Relevant stakeholders and key informants were identified and invited to a stakeholder workshop. The workshop invitees were intended to act as a steering group for the HIA and to provide evidence from the experience, knowledge, opinions and perceptions of populations affected by the policy (stakeholders) and people with expert knowledge (key informants).

The results of these stages led to potential health impacts of the EES in Germany being identified. Criteria were developed to select the focus of the impact analysis. During the impact analysis stage, scenarios were developed and mathematical modelling was used to predict the magnitude and direction of the potential health impacts of two kinds of employment. Odds ratios identified in research already carried out were applied to the present situation in Germany and 3 scenarios.

Criteria developed within the project were used to prioritise the identified health impacts. Recommendations for minimisation of potential negative health impacts were developed. An evaluation of the pilot HIA was carried out using the following criteria; efficiency, effectiveness, equity, participation and transparency, and practicability.

Results

The HIA focussed on flexible forms of employment. This refers to employment that is different from the traditional full-time position such as part-time work, fixed term contracts, telework and shift work. Flexible forms of employment are specifically encouraged within the EES and the German government also supports this. A range of potential health impacts relating to flexible employment were identified. Flexible workers are particularly affected by the health impacts resulting from job insecurity and in general flexible workers experience 'worse' working conditions than other workers. Flexible forms of work are also likely to share some of the unfavourable characteristics of unemployment, which can result in negative health effects.

The potential health impacts of fixed term employment on self reported health status and part-time employment on absenteeism caused by work related health problems were examined. The scenarios contained a shift in employment of 5, 10 and 15% from permanent to fixed term contracts and from full-time to part-time positions. The modelling based on the three scenarios developed indicates that a shift towards more people working in fixed term employment could lead to an additional 100 000 to 400 000 people with self reported poor health status. A shift from full-time contracts to part-time contracts could result in a reduction of between 34 000 and 102 000 reported cases of absenteeism due to work related health problems in Germany.

The impact of fixed term contracts on health will particularly affect some population groups. The health impacts will be more strongly felt in the new *Länder* where almost

14% of employees work in fixed term contracts in comparison to 9% in the old *Länder*. Young people are also particularly affected by fixed term employment. Fifty percent of fixed term employees are under the age of 35. Fixed term employment ranges from 37% in the 15-20 year old age group to 4% in 45-50 year olds. Women will also be more affected than men by these negative health impacts (10% vs. 7%). Health effects related to part-time work will particularly impact on women, as 86% of all part-time workers are women. 40% of women, who work, work part-time.

Discussion/Conclusions

Results of the HIA: The EES encourages flexible forms of work. If the goals of the EES were successfully implemented within the Member States then it could be expected that there will be an increase in limited term and part-time contracts. In Germany recent changes in employment protection legislation are aimed at this. We have modelled the possible impact of increases in numbers of fixed term employees in Germany on two indicators; self reported health status and absenteeism due to work related health problems.

An increase in limited term contracts could lead to increases in reported poor health. However, there is probably a difference in the potential health impacts between cases where limited term contracts are freely chosen as a means of improving a person's work/life balance and cases where it is non-voluntary or 'imposed' by labour market conditions. It can be expected that the negative health impacts will be particularly strong for workers who involuntarily work in fixed-term contracts.

An increase in part-time work could lead to a reduction in absenteeism due to work related health problems. However it is unclear if this is actually a positive health impact. Research in Germany has indicated that the main reason for a recent drop in absenteeism rates is fear of losing one's job. Workers who perceive their jobs as being insecure often try to avoid taking sick leave when they feel ill. Workers in atypical jobs may tend to have higher levels of job insecurity, which could lead to part-time workers having more fear of losing their jobs than full-time workers. Part-time workers may also be able to more easily delay 'being sick' to days when they don't work.

There are some additional limitations to the modelling carried out. The scenarios used were very simple with only two main variables taken into consideration. However, in reality the relationship between flexible types of employment and health is complicated. It is difficult to analyse the relationship between flexible forms of employment and health because within the multiple forms of employment there is also a wide range of different situations. Different aspects of flexible forms of employment can be focussed on but it is difficult to isolate these aspects from other factors. No correlations were modelled although in reality there may be some. Due to data limitations we were also unable to specifically examine population sub groups such as men/women, disabled people, migrants etc. It could be expected that there are sex and age related differences in outcomes.

The HIA indicates that there will probably be winners and losers when it comes to the health effects of flexible forms of work. The winners will tend to be well educated people for whom flexible forms of employment might offer career advancement or opportunities to better combining work and private life. People in this group will often have a higher degree of financial security, which will enable them to work part-time while still earning enough for a satisfying lifestyle. They will also be the kind of people who find new jobs at the end of fixed term contracts without much difficulty. The losers, on the other hand, work in flexible forms of employment because either they were unable to find permanent full-time employment, or have personal/family reasons which mean they are unable to work in 'normal' positions. These people may tend to belong to already vulnerable groups such as older workers or disabled people who already face difficulties finding new jobs when unemployed. These are also the people that will tend to be exposed to health

impacts resulting from hazardous working conditions, job insecurity, poor occupational health and safety conditions etc. It is recommended that the EES policy and the implementation of the EES in Germany should be monitored for any discriminatory effects on particular population groups.

Results of piloting EPHIA in Germany: The pilot HIA was carried out successfully with potential health impacts being identified. The pilot itself proved to be an effective tool for further refining and developing the EPHIA approach.

Predicting health impacts by modelling was shown to be possible for policy level HIA but was limited due to lacking data and evidence of "dose response" relationships. However it can be useful to provide an estimation of the magnitude and direction of impacts. This can be used to compare different impacts. By using alternative scenarios the effect of different policy options can be estimated. The results of quantitative methods such as modelling can provide useful input for the participatory HIA process. The results can be used as a starting point for further discussions within the assessment team and with stakeholders and project initiators. Here there may be different opinions on the 'rightness' of the modelling outcomes expressed. This can provide the opportunity for reflection on the assumptions and beliefs that go into a model. This may help to clarify the relationship between the policy in question and health impacts and can also feed into the prioritisation process. Modelling may also identify areas where further research or additional data is needed. This is an additional valuable HIA outcome.

Some difficulties were encountered in gaining participation from relevant stakeholders and key informants. The planned steering group did not go ahead due to these difficulties. However a small stakeholder workshop was carried out. Reasons for the lack of participation may include a limited familiarity with policy level HIA in Germany and the lack of involvement of the policy initiators. These are issues that should be considered in future HIAs.

The breadth of the EES also brought to attention the need to place limits on the focus of HIAs. For a policy of this size it is difficult to identify all relevant health impacts in sufficient depth in a limited amount of time. Boundaries can be set while carrying out HIAs but the HIA initiators could also in future identify particular issues that should be focussed on in the HIA before it actually begins.

On the basis of the impact analysis recommendations were developed:

Recommendation 1: Introduce a screening process at national and European level of employment related policy for possible discriminatory effects for flexible workers, for example, having children, obtaining loans, retirement and health insurance. This screening process should also specifically consider population groups that are particularly vulnerable to the negative health effects of flexible forms of employment such as women, older workers, disabled people and migrants/foreigners.

Recommendation 2: Mainstream flexible forms of work. Mainstreaming would involve encouraging 'non typical' flexible workers into flexible work (for example specifically encouraging males into part-time work). Mainstreaming flexible work could result in some of the negative framework factors such as social benefits systems being adapted to fit these kinds of work. For example, now that men are more commonly confronted with discontinuous work biographies, and resulting problems such as a lack of social protection, there appears to be a growing interest in the topic. When non-typical work becomes typical then the structures will generally be adapted to fit these types of employment.

Recommendation 3: During the course of the HIA, limitations in the available data and research were identified. In order to address these limitations it is recommended that:

- more specific data on flexible employment which covers topics such as non voluntary working arrangements should be collected,
- data that allows more differentiated analysis of who works in particular jobs should be collected,
- further research on the effects of different working relationships on health should be encouraged,
- the comparability of national data should be further improved e.g. disability, unemployment rates.
- ways should be developed to further integrate quantitative and qualitative studies capable of understanding the relationship between types of employment and health.

4.3 European Employment Strategy HIA in Ireland: Executive Summary

Background

This pilot Health Impact Assessment (HIA) exercise was conducted as part of the 'Policy Health Impact Assessment for the European Union', commissioned by the European Commission's Directorate Generale Health and Consumer Protection (DG SANCO). The project is coordinated by Liverpool University and the research partners are from Ireland, Germany and the Netherlands. The aim of the European project is to develop a HIA methodology for assessing the health impacts of EU policies and activities.

Methodology

The purpose of the pilot HIA in Ireland was to test the methodology produced in the first phase of the project in 2002. The policy chosen for assessment was the European Employment Strategy. The Irish pilot used a range of methods suggested in the draft methodology but concentrated particularly on the participatory aspects of HIA. A key stakeholder group with knowledge of employment (including decision makers in labour market policy) was established to provide expert advice and support. Other methods used included policy analysis, information gathering from key informants, community profiling (including demographic and labour force data), data analysis, literature review, the production of a report and the development of recommendations.

European Employment Strategy and National Policy Context

The European Employment Strategy (EES) was launched in 1997 to combat unemployment and promote the convergence of employment policies in Europe. It aims to produce long-term economic growth, full employment, social cohesion and sustainable development in a knowledge-based society. The EES is implemented through Employment Guidelines that are reviewed annually. Each Member State draws up an annual National Employment Action Plan (NEAP) to enable these guidelines to be implemented nationally. The Irish government has a comprehensive labour programme organised around the pillars of European Employment Guidelines and this forms the basis of the Irish NEAP. This incorporates programmes for the unemployed, education and training (including infrastructure development), lifelong learning, equality programmes and technical assistance.

Focus of the Irish study

After consultation with stakeholders, it was decided to concentrate on a manageable number of areas in the EES of relevance in an Irish context. These were Active and Preventive measures for the Unemployed and supporting integration and combating discrimination in the labour market for people at a disadvantage.

Links between employment and health addressed in HIA

The negative or positive health impacts of employment do not fall equally on all sections of society and these health inequalities are highlighted throughout this report.

Unemployment and health impacts

Unemployment affects both physical and mental health and is a major determinant of morbidity and premature mortality. The anticipation of the loss of a job or job insecurity generally also have impacts on mental health, self-reported ill health and heart disease. Long-term unemployment is associated with socio-economic deprivation and the links between poverty and poor health are well established. People in poverty die younger, have less healthy lifestyles and live in less healthy environments. Unemployed people have lower levels of psychological wellbeing ranging from symptoms of depression and anxiety to self-harm and suicide and are more prone to some forms of health damaging behaviour, such as smoking and drinking. The loss of status and self-esteem associated with unemployment are also important determinants of health.

Physical and psychosocial environment of work and health impacts

The reduction of accidents in the workplace in Ireland following interventions by the Health and Safety Authority (HSA) has contributed to improving the health of workers. However, there is also a social gradient in the incidence of workplace accidents. Also, the number of women injured in the workplace has risen by 50% since 1998. Exposure to physical hazards in the workplace and in conditions such as musculo-skeletal disorders and fatigue are on the increase in Europe. Some of this is due to intensification of work and flexible employment practices. The potential dangers to health include high-level noise, physically repetitive work, carrying of heavy loads and working in painful positions.

Psychosocial risks are associated with stress and according to the World Health Organisation “accumulate during life and increase the chances of poor mental health and premature death”. Employment plays a large role in inducing stress and this is manifested by feelings of irritability, general tiredness and exhaustion, difficulty sleeping, depression and others. Many deal with this stress by increasing alcohol intake.

Health tends to suffer where the demands of a job are high but the ability to control these demands are low. A study of British civil servants showed that men and women with low job control were nearly twice as likely to report a new coronary heart disease than other workers. A person in a ‘high-strain’ job without the appropriate coping skills or job autonomy may experience negative health impacts. But levels of autonomy are unequally distributed, with more skilled workers experiencing more control.

The pace of work that an individual is exposed to has potential health impacts. People who work at high-speed report greater health problems such as backache, muscular pain, stress and fatigue. Intimidation in the workplace, including violence, bullying and sexual harassment will have a direct impact on mental and physical health.

Consultation, social support and information provision in the workplace helps to offset negative health impacts of working conditions and organisational change

The flexible labour market and health impacts

International trends in employment are demanding greater labour market flexibility and this has led to an increase in different types of ‘atypical’ employment. Where flexibility is freely chosen to improve work/life balance health impacts are more likely to be positive. Where it is non-voluntary it is more likely the health impacts will be negative.

Low job security is associated with poor health. Self-reported health deteriorates when people are anticipating job loss. A study of British civil servants showed significant declines in health among those anticipating job change in a period of privatisation, particularly among workers in lower positions. Insecure jobs also involve higher than normal exposure to work hazards. European research shows that people on fixed term and temporary agency contracts reported overall higher levels of fatigue, show less satisfaction with their working conditions, are more exposed to carrying heavy loads and working in painful positions and have less control over aspects of their working life. At the same time they are less likely to be absent from work than permanent workers.

Temporary workers are more likely to be exposed to poor working conditions such as vibrations, loud noise and hazardous products. They are more likely to be carrying out repetitive work and work to tighter deadlines than permanent workers, although they are less likely to receive training to build coping skills.

Teleworking is often designed to enable a better work/life balance and to enable some sections of the population greater access to the labour market. However, some aspects of teleworking, including inferior ergonomics and working in isolation, may have negative health impacts.

The impacts of work on personal life

Employment is a major determinant of how a person's life is patterned and these life patterns in turn may have an impact on the health both of the individual and their families and other dependents. A suitable work/life balance is a vital component of health and patterns that undermine such a balance are likely to have negative health impacts. For example, long working hours have been linked with cardiovascular disease, diabetes, poor self-reported health and fatigue. Night work and shift work is associated with a number of negative health impacts such as chronic sleep disorder, increased incidence of cardiovascular disease and an increase in late-onset diabetes. Increased commuting to work adds to an individual's stress, reduces physical exercise and will increase air pollution, accidents and environmental noise.

People with disabilities, employment and health

In Ireland, just over 23% of those with a long lasting health problem or disability aged 15 to 64 are at work, compared to 53.1% at work for the total population. This exclusion will lead to a number of negative health impacts associated with unemployment, low income, job insecurity and lower status employment.

The stigma attached to people with disabilities in the workplace and the social isolation it causes has a negative impact on health. Undervaluing of their potential contribution in the workplace can lower self-esteem and consequently affect health.

Older workers, employment and health

Increased participation of older people in the workforce is a central aim of the European Employment Strategy. Demographic ageing in Ireland is less marked than in other EU Member States but this is likely to change over the next thirty years.

Older people will usually find it more difficult to withstand the negative health impacts of unemployment. A large proportion of older unemployed people will be suffering illness or disability before a job loss and the stress of unemployment may exacerbate this. A study in Britain showed that men who became unemployed or retired (regardless of previous health) were more likely to die than men who remained continuously employed. Older workers are more vulnerable to the negative health impacts of job insecurity and are particularly vulnerable to physical hazards in the workplace. They receive less training and therefore may have fewer coping mechanisms to deal with high demands in the workplace. They are also more exposed to monotonous work. They often require more time to attend to their own health needs and the health needs of dependents and ongoing or increased work commitments can reduce this time

Women, Employment and Health

Increased participation of women in the workforce is a central aim of the EES. Both the lower rate of employment among women and the lower rates of pay compared to men are pathways to poverty and consequent poor health. The greater proportion of part-time working among women may be detrimental to health when this option is not freely chosen. Narrower occupational opportunities and limited career advancement towards professional and managerial positions may also be pathways to low work control and stress. Women's higher exposure to harassment in the workplace will have negative health impacts. Women have a greater share of domestic responsibility than men and the strain of a double workload is likely to be detrimental.

Many women not participating in the workforce provide valuable unpaid care to children, the elderly and others. The increased participation of women in the workplace needs to be accompanied by increased alternative affordable caring facilities of sufficient quality. For women on low incomes, the prohibitive cost of childcare may negate the monetary benefits of employment and impede the improvement of health through poverty reduction.

Ethnic Minorities, Employment and Health

The Travelling Community

The health impacts of employment policy on the Traveller Community are poorly studied but some potential impacts are described here. Unemployment, in addition to being a pathway to poverty, affects their social links with other communities and contributes to their social exclusion. Poorer education and training expose them to high job strain or places them at risk from physical hazards. The frequent use of the home base as a workplace may lead to exposure to hazardous materials such as scrap metal. Negative attitudes to Travellers means they may experience poorer job security and their experience of racism in the workplace may have negative effects on mental health.

Migrants

Limited information about the work circumstances of migrants in Ireland makes it difficult to assess potential health impacts in a systematic way. However, information emerging from a number of studies indicates a number of concerns. “Deskilling” due to a failure to recognise qualifications and experience of migrants may have negative effects on self-esteem and mental health and may lead migrant workers into jobs in poor physical working conditions, low job control and poor support from superiors and peers. Work permit holders tend to be concentrated in unskilled and semi-skilled occupations. Concerns over their legal status and right to remain in the country may produce job insecurity. Lower rates of pay, enforced overtime and experience of racism are other sources of potential poor health. Asylum seekers’ inability to work adds to other sources of post-migratory stress, adding to anxiety and depression.

Conclusions & Recommendations

This report draws together for the first time the different ways that employment can impact on health in Ireland. Dissemination of this report will raise awareness of these links and provide a resource for further research.

Employment is a major factor in determining health. Inability to access employment and poverty resulting from unemployment can be very detrimental to health. Having a job is generally healthier than not having one. The type of work we do and the quality of our workplace affect our physical and mental health. Some people’s work is healthier than others’. We also structure much of our lives around our employment and our ability to strike a satisfactory work-life balance is important for health.

i Health Impacts of Employment

The Health and Safety Authority (HSA) have a work programme to protect and improve the health and safety of the Irish workforce in Ireland. The information in this report will inform the HSA’s objective of promoting health in the workplace. Elements of this report could be used by the HSA to promote actions that help to promote health, including:

- giving employees more variety in tasks
- building coping skills through training and education for individuals to deal with job strain
- introducing mechanisms to enable good ongoing two-way communication between employers and employees.

ii People with disabilities, employment and health

The exclusion of people with disabilities from the labour market has negative health impacts and much of this exclusion is a result of negative societal attitudes. To combat attitudinal barriers to participation in the workforce, a campaign involving relevant social partners to tackle misconceptions about the productive capabilities of people with disabilities should be put in place.

iii Older workers, employment and health

Ireland's National Training and Employment Authority (FAS) currently has a proactive engagement process for all young workers unemployed for 6 months or more, where they provide advice and assistance with potential employment and training needs and options. To help combat the relatively severe health impacts of unemployment on older workers, we recommend FAS considers a similar process for workers over 45 years of age after 6 months' unemployment.

To help ensure continued participation rates of older people in the workforce in Ireland we recommend:

- exploring within the Lifelong Learning policy and FAS's Competency Development Programme framework how to improve access to training opportunities for older people in the workplace and to enable them to cope better with workplace demands,
- the social partners be asked to develop a national strategy to encourage more voluntary gradual retirement for people in the workplace to help maintain or increase participation rates.

iv Women, employment and health

In anticipation of increased female participation in the labour market as a result of the EES, comprehensive national research in Ireland on those aspects of women's work most likely to impact on health should be considered. These areas include:

- male-female wage differentiation,
- incidence and nature of part-time working,
- harassment and bullying,
- reasons for narrower occupational opportunities and limited career advancement towards professional and managerial positions.

The HIA indicates that increased female labour participation may lead to potential negative health impacts on women due to the pressure of combining dual roles in the household and in paid employment. We recommend therefore government and social partners

- promote and support initiatives to promote work life balance (such as the Work Life Balance Network) to promote harmonisation of these dual roles,
- advocate for the provision of adequate low cost or subsidised childcare places for women moving into low income jobs in the workforce. This would promote equality of opportunity.

v Child care

In anticipation of a large increase in childcare places in coming years to meet EES objectives, we recommend the social partners work towards developing a minimum set of standards to ensure all facilities promote the health of children and meet health and safety standards.

vi Travellers health

The health impacts of employment on Travellers should be included in future Travellers health studies. These include impacts of unemployment and related poverty, lack of access to education and training, risk of physical hazards and discrimination in the workplace.

vii Migrant workers

Given the relative scarcity of research on the health impacts of migrants' employment in Ireland we recommend the social partners consider a comprehensive study on the health and work circumstances of migrant workers in Ireland to look at issues such as:

- “deskilling” and its negative effects on self-esteem and mental health,
- poor physical working conditions,
- discrimination in the workplace and experience of racism,
- low job control,
- low pay.

viii Commuting

This report highlights increased commuting times and the relative reduction in healthier routes to work such as cycling, walking and public transport compared to private car use. We recommend that social partners explore the following suggestions:

- a national Healthy Commuting campaign including health promotion and incentives to both employees and employers to increase cycling and walking to work. This should concentrate particularly on the large percentage of workers who drive short distances to work,
- targets and incentives to reduce commuting and improve work/life balance (such as teleworking and flexible working hours).

ix Data collection on employment and health

While conducting the HIA, the scarcity of data showing direct impacts of employment on health in Ireland was noted. Data collection in this area needs to be strengthened in Ireland.

Possible approaches to doing this include:

Questions on health impacts of employment to be included in future surveys including;

- National Employment Survey,
- Quarterly National Household Survey,
- Census.

4.4 European Employment Strategy HIA in the Netherlands: Executive Summary

Introduction

In the framework of the project 'Policy Health Impact Assessment for the European Union' four pilot studies in four different countries were carried out. The studies concerned Health Impact Assessment (HIA) of the European Employment Strategy (EES).

The aim of the pilot studies was to assess what potential health impacts implementation of the EES might cause on a national level. This should provide input for the ongoing development of the EES.

The core questions were:

Which intended and unintended **positive health effects** can be expected from the implementation of the EES in the Netherlands?

Which intended and unintended **adverse health effects** can be expected?

How can the expected health gain be maximised, and how can the negative effects be reduced or prevented?

Methods

Role of the steering group

During the HIA a steering group played an important role, which consisted of experts and representatives of interest groups. All steps taken in the HIA were discussed with the steering group.

In carrying out the HIA the following steps were taken:

- *Drawing up a community profile*
As a starting point for the HIA, data that are relevant for predicting the health effects of the employment policy in the Netherlands were collected. A core set of indicators on population, health, work and income, and occupational health, developed by the SANCO Research Group served as a starting point. During the HIA process the profile was adapted.
- *Policy analysis*
This analysis describes the three core aims of the EES, the ten priorities and the Guidelines for Member States emerging from this, and how they are implemented on national level in the Dutch National Action Plan (NAP). This was then compared with the Annual Budget of the Ministry of Social Affairs and Employment.
- *Data collection, Phase I (interviews)*
This step was carried out in order to identify focus points for the impact analysis. It consisted of a number of interviews with experts on different work fields related to the EES topics. The experts interviewed were selected, based on their expertise regarding the different groups and the broader fields of interest chosen by the steering group.
- *Data collection, Phase II (literature search)*
On the basis of the themes that emerged from the interviews, a literature search was undertaken. Besides a systematic search in selected literature databases, snowballing was used. The literature suggested by the respondents interviewed during the qualitative data collection was studied as well.
- *Impact analysis*
Making use of all the information that had been previously collected (population profile, qualitative data collection, literature search) and the analysis of the implementation of the Employment Strategy, the health effects were analysed. The approach chosen was a life-course perspective.
- *Priorities in health effects*
A model for prioritisation was developed in co-operation with the steering group and applied to the impacts expected. The criteria concerned the evidence base, the

nature of the health effects, the groups affected, and the connection to national and EU health policy priorities.

- *Developing recommendations*

Based on the conclusions from the impact analysis and the prioritisation a number of recommendations were developed.

Results

The comparison of the EES with the National Action Plan and the Annual Budget showed that the main priority in the implementation in the Netherlands is the increase of labour market participation of people who are currently not employed. Cost containment is the most important national policy driver with less emphasis placed on aspects of the EES such as increasing the quality of work or creating equal opportunities. Long-term unemployment as well as reliance on disability benefits are to be reduced. The policy analysis further showed that an active policy is being carried out with respect to increasing labour market participation of women and older people. The policy directed towards young people, ethnic minorities and the disabled, the other target groups explicitly mentioned in the Strategy, seems to occupy a somewhat less important position.

Focusing on specific themes, the following results were found:

Theme 1 Youth unemployment

Beneficial health effects are expected from the comprehensive approach which has its origins in the EES. This approach means that young people are provided with either a job or training, within 6 months after becoming unemployed. Research data show that unemployment among young people increases the number of psychological and somatic symptoms. Unemployed young people smoke more than those employed. Moreover, unemployment at a young age increases the risk of unemployment later in life, with all health impacts related to this. The health effects are not only to be seen at the time of the unemployment, but also in the long run. Programmes for unemployed youth protect them from some of the negative effects of long-term unemployment, especially of the effects on future risk of unemployment. However, undifferentiated target setting may predominantly benefit those that have better prospects of a job.

The priority for fighting youth unemployment in the implementation of the strategy in the Netherlands is hard to estimate. One of the main measures was the establishment of a taskforce for youth unemployment, but concrete plans of this taskforce were not yet available. Moreover, the implementation of the comprehensive approach is the responsibility of local parties, which may yield different results in different municipalities.

Theme 2 Life-course arrangements

Life-course arrangements are introduced to facilitate work-family balance. They are supposed to help women to enter the labour market. They are also meant to provide opportunities for older employees to work fewer hours instead of retiring altogether. The arrangements are designed as individual savings schemes.

It is doubtful whether the introduction of life-course arrangements will lead to higher rates of participation of women in the work force. The combination work-family itself will not change much, unless it is financed and organised differently. Since the facilities are for a larger part financed by the working population itself the influence on participation may differ according to income. Health consequences will also differ: facilities will be easier to use for those with higher income. Lone mothers with a minimum wage are especially at risk. Someone earning a minimum wage who can only afford to save 1% of this income every month, will have to save for 20 years to be able to take a three-month leave. A similar issue of inequality arises with regard to life-course arrangement as an instrument to postpone retirement. For those who can adequately use the arrangement there may be positive health effects. However, evidence on this matter is not readily available.

Opportunities to use the arrangement for part-time retirement are different for women and men. Women will probably be the ones using up their life arrangement savings for care tasks, e.g. for young children, they will therefore not be able to benefit from the part-time retirement opportunity to the extent that men will. This will particularly be the case for women from ethnic minority groups who bear primary responsibility for care.

Theme 3 Informal care

If the work participation rates under women are effectively increased by the policy, as intended by the Dutch government and the European Union, problems regarding informal care may be expected. These problems will arise where people require intensive care, and long hours of supervision by the carer. The problems will intensify when the access to formal care is restricted. A study from the United States showed that full-time employment, as compared with no employment, reduces informal care-giving by more than 20 hours a week. In the UK, the difficulty of combining work and informal care was confirmed by data showing that providing informal care reduced the probability of working by 12.9% for men and by 27% for women.

In the Netherlands, 2 out of 5 informal carers considers her or his situation as (much too) strenuous. One out of 5 feels unhappy because of the care-giving tasks. When more people combine informal care and work this may increase the number of care recipients that will have to be admitted to nursing homes. A study carried out in the United States showed that care recipients whose informal carers experienced negative impacts were twice as likely to become institutionalised.

One of the experts interviewed mentioned women from ethnic minority groups as a risk group, due both to a lack of access for ethnic minorities and a traditional avoidance of professional care.

Theme 4 Postponing retirement

It is not yet clear to what extent the (financial) policy measures developed to postpone retirement as described in the NAP will be effective to attain increased labour market participation of older people. Early retirement is often used as a way of 'natural downsizing' of companies or organisations. If early retirement becomes impossible it may be substituted by unemployment. This, in combination with a stricter unemployment benefits regime for people over 55, may lead to unemployment-related health problems.

The chance of entering the disability scheme increases with age for both women and men. Postponing retirement may therefore lead to more people on disability benefits. Also people frequently retire due to health reasons. Workload reduction for older employees (for instance through part-time retirement) may therefore be helpful to prevent negative health effects of postponed retirement.

Discussion

The European Employment Strategy allows the Member States a lot of freedom regarding the implementation of the formulated policy priorities. Much depends on the degree to which European policies converge with national priorities. It is therefore difficult to identify which policy measures are really 'European' ones, and which are not. Consequently, it is also difficult to make a direct link between the EU policy and the expected health effects on Member State levels. However, the information about health effects related with the implementation (or non-implementation) in Member States can be used in the iterative policy development process of the EU, in this case in the field of employment. The discussion of health implications in the Guidelines for Member States annually developed in the framework of the EES may provide a cue to national governments to also address these issues in their National Action Plans. This, in turn, may help to boost intersectoral policy making on national levels.

Recommendations

A general recommendation is that health aspects be mainstreamed in all stages of the policy making cycle regarding employment in the European Union.

Regarding specific aspects that are relevant for the Netherlands the following recommendations are made:

- Fighting youth unemployment is, from a health point of view, the most important priority. Specific attention should be paid to this in the annual Joint Employment Report (JER) of the European Commission. The Employment Strategy Guidelines for Member States should explicitly mention youth as a target group. Member States should be asked to describe, in their NAPs, how they plan to address youth unemployment.
- Specific attention in the JER, the Guidelines, and the NAP should be paid to the *composition* of the group unemployed young people. This means that instead of mentioning rough rates of youth unemployment and effective placement in jobs, the plans need to explain how the groups most in need of help are addressed.
- The JER should assess whether policies regarding the facilitation of work-family balance are effective for all socio-economic groups. Moreover, gender and ethnicity based inequity should be a specific point of attention. The Employment Guidelines should address this issue.
- Solutions must be found for consequences of increased labour market participation of women (and men) for the availability of informal care. This should include different types of informal care, which require different inputs from the caregivers. A second priority should be prevention of overload of working informal caregivers. Solutions may lie in changes in working conditions as well as in the organisation of (home) care.
- Facilities to reduce work overload such as part-time retirement may help to keep older people in the labour market without negative health consequences. This could be one of the EU recommendations for the Member States when drafting their NAPs.

4.5 European Employment Strategy HIA in the United Kingdom: Executive Summary

Introduction

This Executive Summary of the Health Impact Assessment (HIA) of the European Employment Strategy (EES) in the United Kingdom summarises the work undertaken by IMPACT. This was part of the 'Policy Health Impact Assessment for the European Union' project, funded by DG SANCO of the European Commission (EC). The project was responsible for synthesising a new HIA methodology (the 'EPHIA' methodology). EPHIA was then piloted on a selected EU policy (the European Employment Strategy) in Germany, Ireland and the Netherlands and across the EU, as well as in the UK.

HIA is a policy tool. EPHIA has been developed for use in policy planning across European institutions to help 'add health value' to decision-making. The aim of the HIA was:

To assess the potential health effects of the EES within the UK using the synthesised EU Policy HIA (EPHIA) methodology

The primary purpose of this HIA is to test EPHIA on the EES. However the findings from this HIA are also being made available to policy proponents to contribute to future decision-making.

The European Employment Strategy aims to increase the employment rate across the EU as described in Table 4.

Table 4 Aims of the European Employment Strategy

Increase the EU employment rate:	2005	2010
Total	67%	70%
Women	57%	60%
Older people (55-64 years)		50%

It fosters full employment, quality and productivity at work and social cohesion and inclusion. The Employment Guidelines in 2003, identified priorities for action across the EU to help meet these aims.

The Employment Guidelines 2003

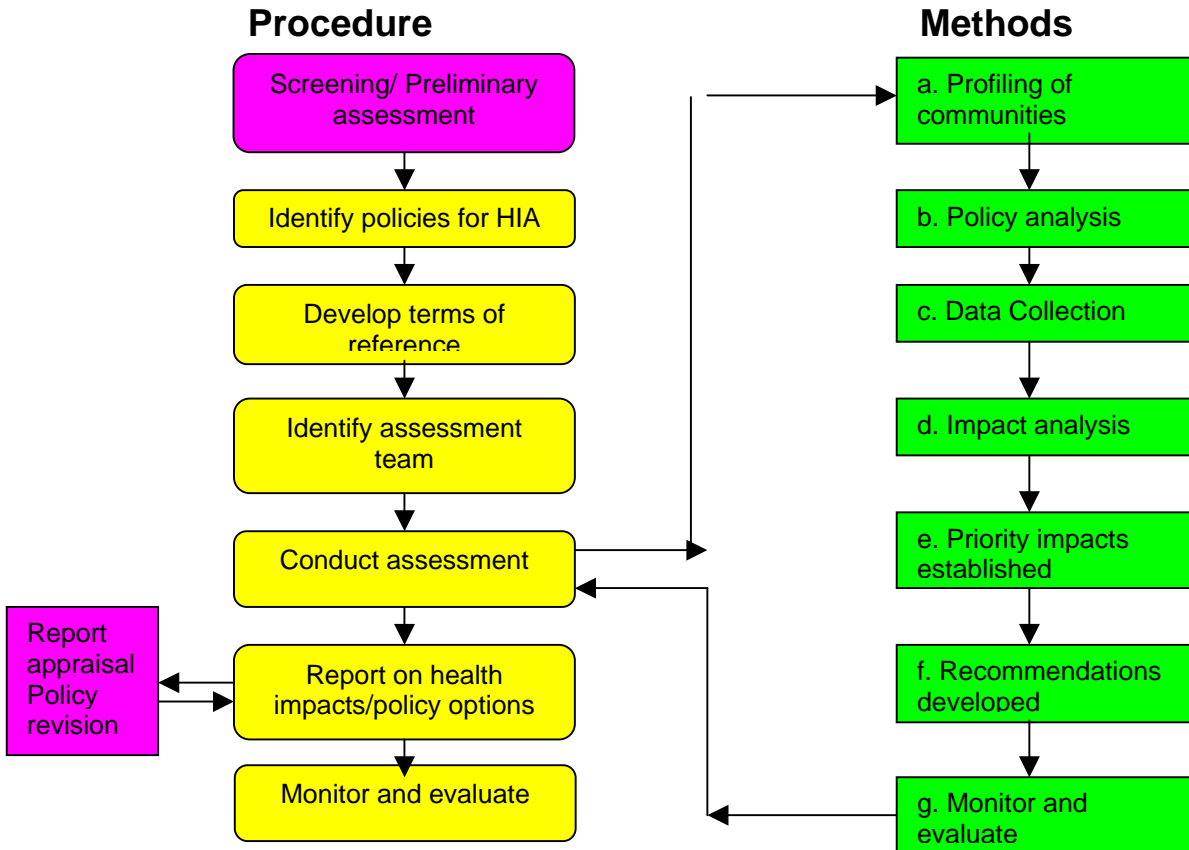
- Active and preventative measures for the unemployed and inactive
- Job creation and entrepreneurship
- Address change and promote adaptability and mobility in the market place
- Promote development of human capital and lifelong learning
- Increase labour supply and promote active ageing
- Gender equality
- Promote the integration of and combat the discrimination against people at a disadvantage in the labour market
- Make work pay through incentives to enhance work attractiveness
- Transform undeclared work into regular employment
- Address regional employment disparities

The UK Employment Action Plan (UK EAP) is the national action plan developed in response to the Guidelines. It outlines action that the UK is undertaking to meet the Guidelines and their associated targets. National action plans are developed using an 'open co-ordination' method. The HIA was undertaken on the UK EAP.

Methods

The HIA methods and procedure used were based on the draft EU Policy HIA (EPHIA) methodology (Figure 2). The process took approximately 50 days.

Figure 2 Draft EU Policy HIA (EPHIA) methodology



The HIA methods involved the collection and analysis of both secondary (existing) and primary (new) data. Relevant secondary data were identified and retrieved from various data sources (section 4) for the development of the profile. The policy analysis also involved the collection and analysis of a range of policy documents; evidence from the literature was also gathered (section 5). Primary data were collected from stakeholders (people affected by the policy) and key informants (people with expert knowledge) (section 6). Evidence from all data was then aggregated and the health impacts of the EES characterised in the impact analysis (section 7). Where there is a convergence of the evidence from the different data sources this is regarded as strong evidence with a greater likelihood of the impacts occurring.

The limitations of the HIA were identified as the lack of access to various stakeholders, the availability of or accessibility to data, for example, the proportion of 'welfare to work' participants who leave the programme unemployed and exit the benefit system, and the lack of opportunity to generate quantitative data, for example, by modelling the health effects of increasing labour force flexibility.

Results

Impacts of the UK Employment Action Plan

Increasing Employment and Reducing Unemployment

There is evidence indicating the potential positive impact of UK EAP measures on reducing unemployment and increasing employment in the UK. Employment rates already exceed all EES 2010 targets. Although it is difficult to isolate the contribution of, for example, 'welfare to work' programmes from the influence of the strong economy on these employment changes, these and other UK EAP measures will probably contribute to potential employment gains in the future. However, the overall increase in employment during 2003 may be small, and the trend has been for a decline in the rate of increase.

Any increase in employment will have positive effects on the health of the population as a whole. In a study a reduction in all cause mortality in the UK using an unemployment-GDP model with a lag of 2 to 14 years after the increase in GDP and employment was forecast. It is believed that this is primarily due to the increase in per capita income resulting from GDP growth. There is also likely to be short and long-term health benefits to the children of families where employment increases the household income and enhances the family environment. But there is evidence that not all employment is beneficial for health, and that some work characteristics can be as damaging to health as unemployment; this was examined late in the HIA.

However this increase in employment has not been uniformly shared across the UK. Certain population sub-groups have consistently had less favourable labour market outcomes, although this has improved for most groups since the mid-1990s. The groups and their relative disadvantage in employment outcome terms are described in Table 5.

Table 5 Employment Rates (%) in the UK

Population Groups	2001	2002	Difference (2002-2001)	Difference (2002 population group - working age)
working age (16-SPA*)	74.7	74.8	0.1	0
people with disabilities (and chronic health conditions)	47.4	48.6	1.1	-26.2
ethnic minority groups (all groups)	58.1	58.4	0.3	-16.3
ethnic minority groups (Bangladeshis)	-	42	N/A	-32.8
ethnic minority groups (Pakistanis)	-	46	N/A	-28.8
lone parents	49.8	50.1	0.3	-24.7
people with no qualifications	50.9	50.3	-0.6	-24.4
older people (50-SPA*)	70.3	70.5	0.3	-4.2
women	69.7	69.6	-0.1	-5.2

* SPA = State Pension Age

There are also regional differences in employment, with the south east and south west in particular having above average rates of employment and the north east, Northern Ireland, London and Wales having below average rates.

There are complex sets of factors associated with each of these inequalities in employment. For many of these there appeared to be a sound analysis of the issues contributing to these inequalities, with resourced policy measures underway and a clear political commitment to address them, for example, action to redress employment

inequalities for people with no qualifications or with disabilities. For others, whilst recent policy developments are acknowledged, the priority for this action was less clear. As such it is anticipated that whilst the positive changes in employment rates for disadvantaged groups may continue, these will be very small and will only marginally reduce the inequality gap. This was examined further in the HIA.

There are likely to be small improvements in health for these groups associated with these slight increases in employment if they result in more income per capita. Many of these groups, for example, Pakistanis, Bangladeshis, people who are chronically sick or disabled, have poorer health than the population as a whole according to a number of health measures. Although 'direct health selection' is unlikely, that is, poor health itself increasing the risk of unemployment, it has been shown to be a risk for initial job loss and then subsequent re-employment. There is therefore a double disadvantage to people who have poorer health. In addition there are implications for the health of the children in these disadvantaged families. However, if the rate of increase in employment for these disadvantaged groups was to be greater than the working population as a whole, this may contribute to a reduction in the existing health inequalities.

The Unemployment/Inactivity to Employment Transition

It is probable that the 'welfare to work' measures advocated in the UK EAP (Guideline 1) will contribute to the growth in the economy in increasing the employment of 'job ready' participants. In addition, evidence from a range of data sources suggests that if similar processes are used to recruit participants to programmes as have been recently used there will probably be a number of associated positive effects. The evaluations of the various 'welfare to work' programmes have shown these positive impacts on participants to include:

- increased confidence,
- increased motivation,
- reduced isolation,
- reduced anxiety,
- gaining and retaining employment,
- participants moving off benefit.

A key positive feature across all the programmes has been the value attached to the one-to-one relationship established between the participants and the Personal Advisors (PA) or their equivalents. This was identified in documents and by stakeholders. Other important aspects of these programmes included flexible working arrangements, for example, part-time work or working at home, choice in training and work placements and positive relationships between the various employment or programme agencies and employers. The evaluation of the New Deal for Lone Parents impacts also showed a net saving of £1600 per participant to the Exchequer.

This evidence suggests that for people who are 'job ready', 'work first' approaches advocated in the UK EAP will potentially have short-term benefits to participants' mental health as a result of 'welfare to work' programmes. However, it is recognised that the proportion of 'job ready' within the unemployed or inactive population is shrinking, and that a 'core' long term unemployed or inactive group with, for example, skills and/or health problems remains. Evidence from similar 'work first'/'welfare to work' programmes in the US suggests the positive health effects, for example enhanced well being, are most likely to occur when there is an increase in household income compared with the benefit position. There is also evidence indicating that there may be associated benefits for the health and development of children in households where parents move into employment. This is primarily as a result of enhanced parenting practices, as well as improvements in standards of living. For families with young children ensuring good quality childcare could potentially maximise the cognitive, social and emotional benefits even further.

However the evaluations of New Deal and the other programmes also revealed that these 'work first' approaches were less successful with people who were most disadvantaged in the labour market (Guideline 7). People with health problems, ethnic minority groups and people without basic skills or with outdated skills benefited least from such approaches, potentially being further disadvantaged in the labour market by interventions that did not meet their needs. Associated with this were some less successful features and potential barriers to participation. For example, employer attitudes, including discrimination, poor organisation and quality of some training. However, the recently introduced pilots such as Pathways to Work, Job Retention & Rehabilitation and Action Teams for Jobs may address many of these issues. Employment Zones (EZ) interventions seemed to have a greater success for longer term unemployed people compared the New Deal programme specifically for the long term unemployed (ND 25 plus), the latter having negligible impacts on employability. Working Neighbourhood pilots are hoping to build on the EZ successes, whilst taking account of the local context. Evidence from the US has shown that the most 'hard to employ' quintile were more likely to be placed in low paid jobs. When the income from work was less than the income on benefit, there were poor prospects and the job was of poor quality, the mental health of participants deteriorated. There were also negative impacts on children, including a reduction in cognitive development and school performance and an increase in anti-social behaviour. These are obviously pitfalls to avoid in the UK.

It is difficult to separate out the impact of fiscal measures such as the National Minimum Wage and working tax credits designed to help reduce poverty and 'make work pay' (Guideline 8) from the total 'welfare to work' package. The US 'welfare to work' programme differs from the UK's in that financial assistance is time limited and there are sanctions if participants fail to comply with requirements, for example, refusing a job. In addition to people who leave the programme due to sanctions there are also people who become unemployed at the end of the programme, but who are not entitled to further financial assistance. Evidence from the US has identified the severe impacts of being without social protection on the health and well being of these people and their families as follows:

- hunger,
- food insecurity,
- rent arrears,
- living in overcrowded accommodation,
- increased incidence of hospitalisation of children.

Although the US and UK schemes are different it was not clear what proportion of UK 'welfare to work' participants who come off benefit may also be unemployed and potentially living in extreme poverty, such as reported in the US.

Other potential health impacts from the move from unemployment or inactivity to employment could be changes in health-related behaviour and health service use. The changes in health-related behaviour could be either positive or negative; there was insufficient evidence to predict these with any reliability. Similarly it is not possible to predict the change in health service activity, however it is probable that the frequency of use will change, which has implications for out of hours provision. In addition the focus on reducing inactivity due to ill health will undoubtedly impact on primary care professionals from the GPs' initial certification to chronic disease management with practice nurses and rehabilitation with occupational therapists. The 'unemployment/inactivity to employment transition' may also have a number of stages in terms of the effects on mental and physical health; for example there may be an 'Anticipation Phase' for participants waiting to start a programme or be seen by a Personal Advisor. Analysis of other international welfare reforms suggest contextual factors appear to influence the impacts of interventions on participants, for example, when the changes are perceived as a net loss (financial, education, choice, esteem) or are introduced relatively quickly, the impacts on participants are more negative. This is reminiscent of the effort-reward

imbalance model that has been used to explain the effects of psychosocial work characteristics on health outcomes. It is clear that more work needs to be done to construct a model explaining the relationship between different 'employment transition' factors and their impact on health.

Employment flexibility

There is strong evidence that points to an increase in flexibility in the workplace which the UK EAP (Guideline 3) will contribute to. There are potentially both positive and negative health impacts associated with this increase in labour market flexibility. Employment trends have shown an increased demand for labour market flexibility, for example, in 'non-standard' employment contract types, such as part-time and temporary contracts. This is in response to globalisation and economic pressures which have companies trying to adapt to seasonal fluctuations in demand for goods and other peak production times, whilst controlling labour costs. There have also been developments in flexible production processes, for example, 'just in time' production. Other forms of labour market flexibility include 'numerical' - adjusting the size of the workforce - and 'functional' flexibility - adapting the tasks of workers - have also increased in the UK recent years.

Evidence has shown that part-time workers are more likely to report better health outcomes for six health indicators:

- job dissatisfaction,
- health-related absenteeism,
- stress,
- fatigue,
- backache,
- muscular pains.

regardless of the contract type, compared to full-time workers. Part-time employees are particularly more likely to be satisfied with their job. However, potential issues associated with part-time work are lower pay, employees feeling isolated or not as involved in the organisation, and receiving the same career development or training opportunities. Also part-time work is often unskilled work with poor working conditions.

However, there is strong evidence from a range of data sources of the negative health effects of being in an insecure job, whether through threatened unemployment, reduced working hours, temporary work or fixed term contracts, for flexibility purposes. The following health effects have been reported when jobs changed from being secure to insecure:

- changes in health-related behaviour, e.g. increase in smoking, reduction in physical activity in women,
- psychological effects, e.g. increase in depression, anxiety,
- physiological effects, e.g. increase in cardiovascular risk factors (hypertension),
- increase in the use of health services,
- increase in job dissatisfaction, e.g. twice as prevalent compared to permanent workers.

Other reported negative effects include reduced organisational commitment and performance. There is also some evidence suggesting that ethnic minority groups experienced more negative effects as a result of discrimination. Some studies (Burchell, 1996) have shown equivalent health scores for people in insecure jobs and unemployed people.

Evidence from the literature and key informants suggests that the psychosocial work factors associated with changes in job security and possible mediators for the health effects were:

- increase in control,
- increase in demand,

- loss of skill discretion,
- loss of support.

This is contrary to earlier job strain models where the level of control was seen as the key psychosocial work characteristic that could predict cardiovascular and other health outcomes of employees. However, evidence from Finland was that there was an increase in demand, but reduction in control and a loss of support. It has been suggested that during organisational change, the relationship between psychosocial work environment characteristics to health differ from a stable organisational state. Further research needs to be undertaken to explore this relationship.

Key informant evidence suggests that there are different responses to job insecurity depending again on contextual factors. If, for example, job insecurity is introduced into previously secure jobs (so that there is a change in perceived security or a loss in valued aspects of previous jobs) the impact on health is more severe. However, workers in secondary labour markets, that is, labour markets that are already insecure, do not appear to have such severe health impacts. Workers in these insecure, low skilled, poor quality jobs are often women and people from ethnic minority groups. What is clear though is that workers in insecure secondary labour markets are more likely to be exposed to physical and chemical hazards in the work environments, such as working in painful or tiring positions, high noise levels, and work involving repetitive tasks and movements. Compared with permanent workers, they tend to have less opportunity to develop skills at work and have less access to training. Safety concerns have been raised in some industries, for example, the petrochemical industry, where contingent workers were less experienced and skilled than direct-hire workers and yet received less health and safety training than direct-hire worker. They have less autonomy over their work and time and less opportunity to be involved in workplace decisions. The health effects of these psychosocial work conditions include musculoskeletal disorders and fatigue.

There is strong evidence that increasing workers' control, for example, decision latitude and participation, can benefit both physical and mental health, and mitigate against the harmful effects of job insecurity. Having information and co-worker, supervisor or trade union support were also identified as valuable buffers to the negative effects of job insecurity during organisational change.

The measures included under Guideline 3 - regulatory reform, promoting diversity of working arrangements, managing change and restructuring, and health and safety at work - are intended to develop a climate that enables labour market flexibility, whilst compensating for this with rights to flexible working arrangements for employees. The measures are also designed to protect against and limit the negative effects of labour market flexibility. It was beyond the scope of this assessment to examine each of these measures in detail. However based on the current evidence (above) of the:

- growth in labour market flexibility with its associated negative health impacts,
- embryonic developments in flexible working arrangements for employees,
- early developments in mitigating measures, for example, following redundancies, but not necessarily other issues associated with job security,
- health and safety targets that may not meet the needs of the most vulnerable workers (contract type rather than occupation).

it is possible that in the short term these measures will have net negative health effects on the labour market as a whole. The impacts will be most severe on workers who move from secure to insecure jobs; the health impacts could be similar to those described above. In the most severe cases these health effects could be as detrimental as being unemployed. However although workers already in insecure jobs may not experience such negative health impacts when they are subjected to organisational change, they are more likely to be already exposed to more adverse physical and social working environments than permanent workers. As indicated above, secondary labour markets

tend to be low paid, low skilled, poor jobs and are over-represented by women and people from ethnic minority groups.

In the longer term, the development of flexible working arrangements for employees will possibly encourage more inactive people, for example, women, older people and people with disabilities into the work place. For those people in work, it may also help to reduce work-life imbalances with possible positive health effects; this will again most probably help parents with children and older workers. Finally those organisations supporting flexible working arrangements may find it acts as a useful employment retention measure.

Employment to Unemployment Transition

The Jobcentre Plus measures (Guideline 3) to mitigate against job losses will potentially reduce the extent of negative health effects associated with redundancy and unemployment.

As defined earlier, unemployment has a range of short and long term negative health effects. The steepest decline in mental health is following recent unemployment.

Preventing Unemployment

Measures to develop the human capital of the population (Guideline 4) are likely to have long term positive health effects for the population as a whole and for individuals. This relates to the increase in GDP and global competitiveness, from enhanced performance. Improving skills level increases performance. Skills and qualifications influence an individual's labour market position, their income, housing and other material resources.

There were some concerns however that some measures to improve employability of the long term unemployed are not proving effective, for example New Deal 25 plus.

Impacts of the European Employment Strategy on the UK Employment Action Plan

There were conflicting views from stakeholders and key informants on whether there was an impact of the EES on the UK EAP and, by association, national employment policy. The policy analysis indicated that the UK has a leaning towards US economic and employment policy. However, the value of the EES appears to be in balancing this policy direction by emphasising the 'European Social Model' and influencing the UK's social agenda. The importance of this influence cannot be underestimated; there are worrying trends in US employment policy resulting in severe negative health impacts on the health of vulnerable individuals and their families.

Having said this it is disappointing that there seems to be less influence from the EES; for example on equity issues such as action to reduce the gender pay gap. Similarly in the spirit of this open co-ordination method, the added value of the EES would be enhanced by encouraging more sharing of good practice from the UK with the rest of Europe, and vice versa. For example, the intermediate skills development programmes in Germany and the Netherlands.

Discussion and Conclusions

Measures included in the UK Employment Action Plan, developed in response to the European Employment Strategy 2003 Guidelines, will probably contribute to UK employment gains during the year. This increase in employment is likely to be small. However it is difficult to isolate the relative contributions of the UK EAP measures on these employment changes from the impact of the strong economy.

There will be positive impacts on population health associated with these employment gains although it is estimated that there will a 2 to 14 year lag before these health gains materialise. There are also likely to be health benefits for the children of families where employment increases household income. But not all employment is beneficial to health; some work characteristics are as damaging to health as unemployment.

However there are certain population groups - certain ethnic minority groups, people with disabilities and poor health, people with no qualifications, lone parents, women and older people - who have consistently less favourable labour market outcomes than the working age population as a whole. There are complex reasons for these inequalities. Although there will be increases in employment for these disadvantaged groups, these will be small and will only marginally reduce the inequality gap.

There will be small improvements in health for these groups where these increases in employment result in increase in per capita income. However there are concerns that these groups also tend to be recruited to 'poor quality' jobs - jobs in the secondary labour market which are characterised by low pay, low skills, poor psycho social and physical (hazardous) work environments, as well as being insecure. There are many negative health impacts associated with these 'poor quality' jobs, including depression and other mental health problems, musculoskeletal disorders, fatigue, job dissatisfaction. These groups have a tendency for poorer health than the population as a whole; having a poor quality job is a double disadvantage. There are also possible adverse health effects in children of these families.

The 'welfare to work' measures in the UK EAP (Guideline 1) will potentially benefit the unemployed or inactive who are 'job ready' in gaining employment. With an enhanced income they are likely to have improved long term health outcomes, in addition to short term improvements in mental well being. There are also possible developmental benefits to children. People who are not 'job ready' are less likely to benefit from 'work first' approaches; community-focused approaches such as Employment Zones are more likely to have positive impacts on employability. There are potential health impacts on, for example, health-related behaviour and health services, but these are speculative. Similarly there appear to be contextual factors that influence the impacts of interventions.

Measures to increase labour market flexibility (Guideline 3) may potentially have a combination of positive and negative health impacts. Positive health impacts are probable as a result of increases in flexible working arrangements such as part-time work and improvements in work-life balance, although there may be some negative impacts associated with psychosocial work factors such as increased isolation and reduced career opportunities. Negative health impacts are probable from changes in job security, including increases in cardiovascular risk factors, reductions in mental health and increases in health service use. In addition increases in poor quality precarious jobs will have negative health impacts as discussed above. It is possible that there will be net negative health effects on the working population as a whole as current measures to help manage the impacts of labour market changes are not sufficiently well-developed to buffer these negative health impacts.

The impact of the European Employment Strategy on the UK EAP, and in turn national employment strategy is highly speculative. That is that it had a moderating effect on employment policy with a particular influence on the UK's social agenda. Nonetheless, this was felt to be highly important in protecting and improving the health of the working age population as a whole.

Recommendations

Reduce the negative health effects of labour market inequalities by:

- Making the reduction of labour market inequalities (LMI) for all disadvantaged groups (and their sub groups) a more explicit priority of the Government
- Continuing the development of a comprehensive picture of the underlying causes of these LMI
- Ensuring action to reduce LMI is focused at these underlying causes
- Setting Public Service Agreement targets for year on year reductions in LMI relative to the working age population as a whole

Enhance the positive and reduce the negative health effects of the unemployment/inactive to employment transition by:

- Addressing differential access to 'welfare to work' programmes, for example, by introducing an interview with a Personal Advisor as soon as the unemployed or inactive register for benefits (as New Zealand model)
- Enhancing programme outcomes, for example:
 - identifying each participant's labour market barriers (including health) and action plans to address with PAs (New Zealand and Iceland models)
 - working with employers to overcome barriers identified
 - working with Local Strategic Partnerships to overcome other barriers
 - referrals into these programmes by primary care health professionals, voluntary sector
- Reducing differential programme outcomes, for example, developing specialist PAs to provide support and guidance to those groups most disadvantaged in the labour market (people with health problems, from ethnic minority groups, or without basic skills)
- Reducing differential programme outcomes, for example, building on the 'Pathways to Work pilots' and developing/testing holistic approaches to action planning (New Zealand model) for participants who are not 'job ready' including:
 - referrals to mixed programmes (training/work placement)
 - referrals to 'Expert Patient Programmes' (disease management programmes run by the local Primary Care Trusts) for participants with chronic conditions
 - referrals to Sure Start or Sure Start Plus
- Undertaking prospective research to identify the short and long term health effects of 'welfare to work' programmes, including mixed programmes
- Collecting data on the short and long term effects of 'welfare to work' programmes on household income
- Collecting follow-up data on unemployed programme 'leavers' who do not re-register for benefits
- Considering the potential health impacts of 'welfare to work' programmes during programme planning

Reduce the negative and enhance the positive health effects of employment flexibility by:

- Improving the psycho-social work environment and employee health by actively promoted evidence-based approaches, for example:
 - demonstrating management commitment to improving working conditions and worker health
 - providing worker support from managers and co-workers
 - developing worker participation in the planning and implementation of individual business objectives
- Prioritising the widespread introduction of the Health and Safety Executive's Management Standards for Reducing Stress in the workplace, following the completion of the pilot
- Publishing the UK's performance against the EC's 'Quality Jobs' indicators and developing action plans to improve as necessary
- Undertaking more detailed research into the health effects of :
 - different dimensions of labour market flexibility
 - labour market flexibility/organisational change on different workers
 - improving work-life balance
- Considering the potential health impacts of employment policy during policy planning
- Adapting the Government's existing Regulatory Impact Assessment tool, which examines the impacts of all proposed legislation or policies on business, to include assessing the impacts on the health of the working age population as a whole and on groups disadvantaged in the labour market
- Introducing public sector procurement regulations that require contractors to submit evidence of their employment policies, for example, equality and diversity

Reduce the negative health effects of the employment to unemployment transition by:

- Introducing early health care interventions as part of the package of Jobcentre Plus 'managing change and restructuring' measures

Enhance the positive health effects of preventing unemployment by:

- Developing the skills and employability of groups disadvantaged in the labour market by designing programmes to meet their specific needs (see above)
- Assessing the health effects of these programmes (see above)
- Actively promoting the investment by employers in the training and development of all employees

Enhance the impacts of the European Employment Strategy in the UK by:

- Influencing UK employment policy in relation to reducing labour market inequalities for key disadvantaged groups, including access to employment, pay, training, 'quality jobs'
- Building on the open method of policy co-ordination to share good practice between Member States

4.6 European Employment Strategy HIA across the European Union: Executive Summary

Introduction

This Executive Summary of the Health Impact Assessment (HIA) of the European Employment Strategy (EES) across the EU summarises the work undertaken by IMPACT. This was part of the 'Policy Health Impact Assessment for the European Union' project, funded by DG SANCO of the European Commission (EC). The project was responsible for synthesising a new HIA methodology (the 'EPHIA' methodology). EPHIA was then piloted on a selected EU policy (the European Employment Strategy) in Germany, Ireland and the Netherlands and in the UK, as well as across the EU.

HIA is a policy tool. EPHIA has been developed for use in policy planning across European institutions to help 'add health value' to decision-making. The aim of the HIA was:

To assess the potential health effects of the EES within the UK using the synthesised EU Policy HIA (EPHIA) methodology

The primary purpose of this HIA is to test EPHIA on the EES. However the findings from this HIA are also being made available to policy proponents to contribute to future decision-making.

The European Employment Strategy aims to increase the employment rate across the EU as described in Table 6 below:

Table 6 Aims of the European Employment Strategy

Increase the EU employment rate:	2005	2010
Total	67%	70%
Women	57%	60%
Older people (55-64 years)		50%

It fosters full employment, quality and productivity at work and social cohesion and inclusion. The Employment Guidelines in 2003, identified priorities for action across the EU to help meet these aims.

The Employment Guidelines 2003

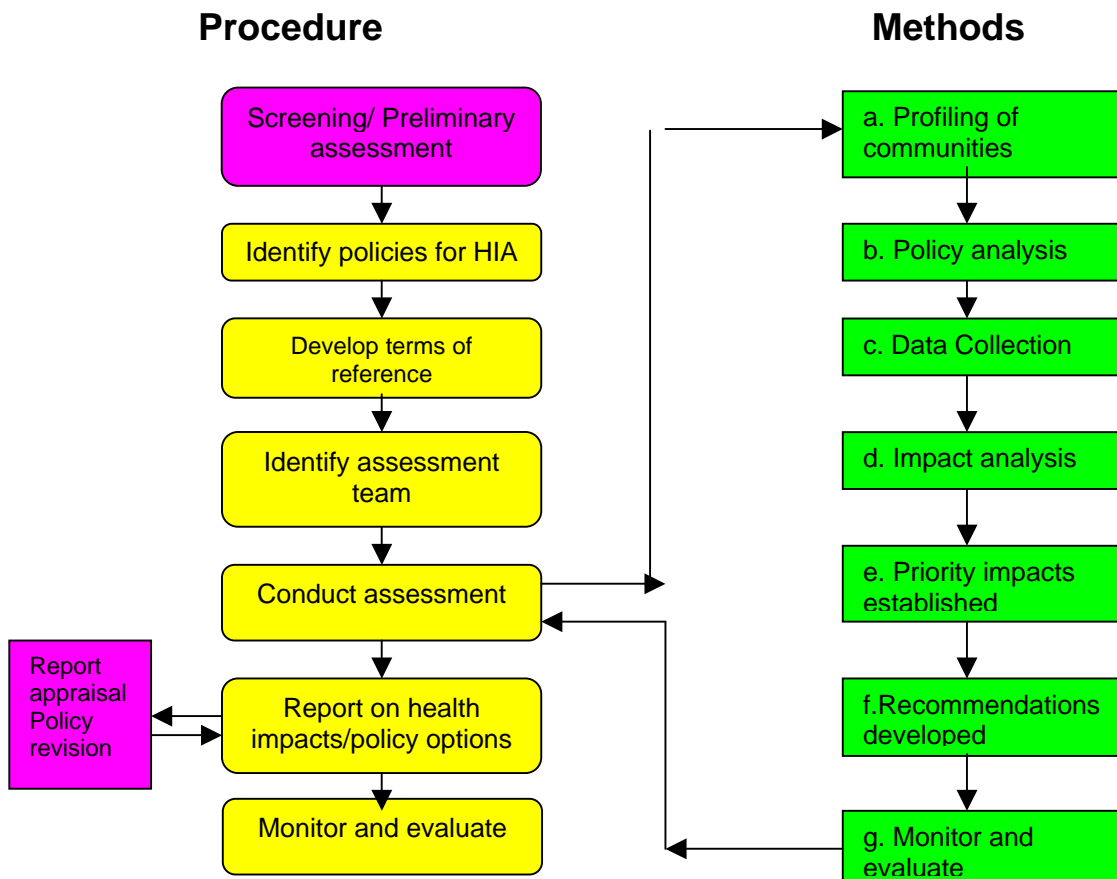
- Active and preventative measures for the unemployed and inactive
- Job creation and entrepreneurship
- Address change and promote adaptability and mobility in the market place
- Promote development of human capital and lifelong learning
- Increase labour supply and promote active ageing
- Gender equality
- Promote the integration of and combat the discrimination against people at a disadvantage in the labour market
- Make work pay through incentives to enhance work attractiveness
- Transform undeclared work into regular employment
- Address regional employment disparities

National Employment Action Plans (NAPs) are developed by Member States in response to the Guidelines, they define progress and future actions to meet EES targets. A Joint Employment Report is subsequently produced that comments on the NAPs. The 'open method of co-ordination' is used. The HIA was undertaken on the EES and specific areas of the Guidelines.

Methods

The HIA methods and procedure used were based on the draft EU Policy HIA (EPHIA) methodology (Figure 3). The process took approximately 50 assessor days.

Figure 3 EU Policy HIA (EPHIA) methodology



The HIA methods involved the collection and analysis of both secondary (existing) and primary (new) data (section 2). The policy analysis (section 3) involved the collection and analysis of a range of policy documents. Relevant secondary data were identified and retrieved from various data sources (section 4) for the development of the profile. Evidence from the literature was also gathered and primary data were collected from stakeholders (people affected by the policy) and key informants (people with expert knowledge) (section 5). Mathematical modelling was undertaken to quantify the effects of part-time work on sickness absence (section 6). Evidence from all data was then aggregated and the health impacts of the EES characterised in the impact analysis (section 7). Where there is a convergence of the evidence from the different data sources this is regarded as strong evidence with a greater likelihood of the impacts occurring.

The limitations of the HIA were identified as practical and resource issues associated with undertaking a multi-national HIA; the lack of access to various stakeholders; the availability of or accessibility to comparable data, for example, employment rates for ethnic minority groups or disabled people, participants who exit active labour market programmes and the benefit system; and the lack of strong evidence from research of the health effects of, for example, active labour market interventions.

Results

Increasing employment

Data from the profile shows that employment is increasing across the EU, with a 10% increase between 1995 and 2002. Denmark, the Netherlands, Sweden and the UK all had employment rates over 70%. However, Belgium, Greece, Spain and Italy all had rates less than 60%.

There has been a greater increase in employment for women than for men, with 14% more women in employment in 2002 compared with 1995. However, from 2002 data there is a difference in employment rates for men and women across the EU of 17.4%. This varies between Member States with the biggest difference in Greece, Spain, Italy and Luxembourg (24%) and the smallest difference in Finland and Sweden (less than 4%).

There has also been an increase in older people (55-64 year olds) in employment, up 16% between 1995 and 2002. The EU employment rate for 55-64 year olds was 11% in 2002, with rates above this in Sweden (18%), Denmark and Greece (both 13%), and below Luxembourg (6%), Belgium and Austria (7%).

Data was not available to enable a reliable comparative analysis of trends in employment for disabled people and minority groups. It will be important to collect these data in the future if the implementation of the social inclusion objectives of the EES are to be monitored effectively.

There is evidence indicating the probable positive impacts of the EES in increasing employment across the EU. Although it is difficult to disentangle the contribution of different structural reforms and cyclical variations in the labour market from economic influences, it was estimated that the EES influenced an acceleration of the rate of decrease of long-term unemployment by approximately 1.4% at the end of the 1990s. There was also evidence of a more responsive approach to labour market participation during that period, enabling employment to increase. The EES was assessed to have contributed to this. Whereas in 1998 only 6 Member states were considered to comply with the preventive and active targets of the EES, by 2001 only 5 Member States could not meet these targets.

Any increase in employment will have positive effects on the health of the population as a whole. A reduction in all cause mortality in the EU using an unemployment-GDP model with a lag of 2 to 14 years after the increase in GDP and employment has been forecast. It is believed that this is primarily due to the increase in per capita income resulting from GDP growth. There may also be improvements in mental health. Evidence from the US suggests there may be short and long-term health benefits to the children of families where parents' move from unemployment to employment increases the household income and enhances the family environment.

But evidence from the literature, stakeholders and key informants has also shown that not all employment is beneficial for health. Some work characteristics can be as damaging to health as unemployment. Workers in jobs that are of poor quality, including low paid, and precarious (insecure) have similar health scores to the unemployed. Evidence from the US also indicates negative impacts on the cognitive, emotional and behavioural development of children from families where parents move from unemployment to employment that fails to provide an increase in household income, and where the job is also of poor quality and has few prospects. The EES is concerned with improving quality of jobs. However, the evidence related to quality of jobs shows mixed results. For example, reductions in the incidence of injuries at work suggest improvements while trends in the incidence of work related stress indicate deterioration. Some data such as trends in work related ill health is ambiguous. The development of

'job quality' indicators is welcomed. The collective reporting of these, and the development of an overall job quality index, will be important in monitoring improvements in job quality.

Whilst the EES objectives and targets for full employment across the EU population as a whole coupled with strengthening social cohesion and inclusion are recognised and supported, the following suggests that the 'social' dimension of the EES needs greater attention. For example:

- The Joint Employment Report indicates that the difference in some Member States employment rates, for example, Belgium and Greece, from the EU average may continue.
- Evidence from the JER and stakeholders make it unclear whether the differences in employment levels of some population groups, for example, women and older workers will be significantly impacted on.
- It was noted that levels of self-reported health for women and across some Member States, including Greece, were low. Whilst the data are not readily compared it suggests that the EES is unlikely to contribute to reducing existing health inequality gaps.
- With a target of 50% of older workers in employment by 2010, at current levels this means that between 2002 and 2010 there needs to be an increase of 7 million older people in employment. 2.6 million of this total is required purely to counteract the effect of an ageing population. From 2002 to 2010 there needs to be an annual increase of 900 000 older workers in employment per year.
- The lack of comparable data for minority groups and people with disabilities across the EU has already been mentioned; this was also the case for people with chronic health conditions who are more likely to be inactive.
- It has been estimated that the under-use of available human resources in the EU and the wider costs of wastage in the economy (including ill-health, crime and related costs) could be between €1,000-2,000 billion (12-20% of GDP).
- Documentary and stakeholder evidence has shown the discrimination that takes place in recruitment to employment as well as once in employment.

The complex sets factors associated with these labour market inequalities are recognised.

Action on these root causes needs to be strengthened.

Increasing flexible labour markets

As described in section 5, flexible labour markets include the following types of flexibility: flexible employment type (also 'atypical', 'non-standard' or 'precarious' employment), functional flexibility (adapting the job tasks) and numerical flexibility (adjusting size e.g., 'downsizing').

In Europe, flexible employment includes part-time, temporary contract, and fixed term contracts. The EES is likely to contribute to this increase in employment flexibility (Guideline 3), particularly in those Member States where this has not been well established. However, Member States have introduced different measures to achieve this that may have different degrees of success in increasing employment flexibility as well as different associated effects.

Evidence from section 4 indicates a trend for an increase in part-time employment across the EU. Part-time work increased by 3.5% between 1994 and 2001. The EU average for part-time work in 2002 was 18.2%; however for women this was 33% and for men, 6%. More part-time work is undertaken in the north of Europe: 43.8% in the Netherlands, 21.4% in the UK, 21.4% in Sweden and 20.6% in Denmark. In south Europe levels are lower: Portugal, 11.3%, Italy, 8.6%, Spain, 8% and Greece, 4.5%; however, they had all introduced labour market reforms, including legislation for part-time work between 1998 and 2002.

Evidence from section 5 shows that part-time workers are more likely to report better health outcomes for six indicators compared with full-time workers of any contract type: job satisfaction, health-related absenteeism, stress, fatigue, backache and muscular pains. As discussed in section 6, there is inconclusive evidence to suggest that reductions in absenteeism are due to improvements in health. However, bearing this in mind, the modelling undertaken to forecast potential changes in sickness absence from work with a shift from full-time to part-time indicates a reduction of reported absenteeism of between 177 000 (5% shift to part-time work) and 530 000 (15% shift to part-time work).

However, there are potential negative impacts associated with part-time work including, low pay, less involvement in the organisation, and less career development or training opportunities (including health and safety training). Part-time work is also often unskilled and with poor working conditions; although exposure to hazards is obviously less than for full-time workers.

There has also been an increase in the proportion of fixed term contracts as opposed to permanent contracts. Between 1994 and 2001, these increased by 29%. In 2002, the EU average for fixed term contracts was 13.1%. Portugal and Spain had the highest levels of fixed term contracts at 21.8% and 31.2%, respectively. Ireland, Iceland and Luxembourg had the lowest at 6% each.

Workers with fixed term contracts or in temporary work are more likely to report poorer health compared to permanent workers. They are more likely to be exposed to physical and chemical hazards, such as working in painful or tiring positions, high noise levels and do work involving repetitive tasks or movements. They are also less likely to be in control of their work and time, and have less opportunity to be involved in work decisions. However, there is evidence showing that contract status has an independent effect on health outcomes regardless of working conditions. They are particularly likely to suffer from job insecurity. There is strong evidence showing the negative health impacts of being in an insecure job, although there appears to be different responses to this depending on contextual and individual factors, such as support within an organisation and changes in perceived security or a loss in a valued aspect of a job. In general, changes made to workers already in insecure jobs seem to have less negative effects, but this requires further research.

Negative impacts are most severe when jobs change from being secure to being insecure, for example:

- changes in health-related behaviour, e.g. increase in smoking, reduction in physical activity in women),
- psychological effects, e.g. increase in depression, anxiety,
- physiological effects, e.g. increase in cardiovascular risk factors (hypertension)
- increase in the use of health services,
- increase in job dissatisfaction, e.g. twice as prevalent compared to permanent workers.

Other reported negative effects include reduced organisational commitment and performance. There is also some evidence from qualitative studies in the UK suggesting that ethnic minority groups experienced more negative effects as a result of discrimination. Some studies have shown equivalent health scores for people in insecure jobs and unemployed people.

Evidence from UK studies suggests that the psychosocial work factors associated with changes in job security and possible mediators for the health effects were:

- increase in control,
- increase in demand,
- loss of skill discretion,
- loss of support.

This is contrary to earlier job strain models where the level of control was seen as the key psychosocial work characteristic that could predict cardiovascular and other health outcomes of employees. However, evidence from Finland was that there was an increase in demand, but reduction in control and a loss of support. It has been suggested that during organisational change, the relationship between psychosocial work environment characteristics to health differ from a stable organisational state. Further research needs to be undertaken to explore this relationship.

There is strong evidence that increasing workers' control, for example, decision latitude and participation, can benefit both physical and mental health, and mitigate against the harmful effects of job insecurity. Having information and co-worker, supervisor or trade union support, were also identified as valuable buffers to the negative effects of job insecurity during organisational change.

Flexible labour markets also mean people moving into and out of employment ('numerical' flexibility). However, the literature indicates that there is a difference between voluntary redundancy involving a good financial settlement, exit counselling and/or training for future employment. Although there is some evidence indicating that the steepest decline in mental health is in the early stages of unemployment, more research is needed to understand the effects of the employment-unemployment-employment transition on health. For example, it has been suggested that 'active coping' - focusing on the problem - has a more positive effect as opposed to 'passive coping' - focusing on the symptoms.

Thus there may be both positive and negative health impacts associated with the EES' promotion of increased labour market flexibility.

Increasing active labour markets

From evaluations, there is evidence to suggest that the EES will continue to contribute to the unemployed in the EU being engaged early in measures to return them to work (Guideline 1). Belgium, Germany, France, Luxembourg, Netherlands, Portugal and the UK all introduced new programmes aimed at the unemployed during 1998 and 1999. However documentary evidence suggests there have been variations in the relative success in the implementation of these schemes; for example, the proportion of unemployed people who are still unemployed after 6 or 12 months.

There is some documentary and stakeholder evidence, as well as from the literature, that show a range of impacts associated with preventive and active labour market programmes. A summary of these positive impacts include:

Individual

- Increased confidence (UK)
- Increased motivation (UK)
- Reduced isolation (UK)
- Reduced anxiety (UK)

Socio-economic

- Social inclusion of beneficiaries (FI, FR, DK, GR)
- Preventing exclusion from the labour market (SW)
- Increase in labour supply (LU, SW)
- Improvements in human capital, less bottlenecks (DK, SW, UK)
- Participants moving off benefit/increasing national income (UK)
- Reduced wage pressure (UK)

These impacts varied by Member State, target group and age, as well as according to the measure and size of the programme. This was not evaluated in detail.

Evidence from the UK suggests that for people who are 'job ready', 'work first' approaches will potentially have short-term benefits to participants' mental health as a result of 'welfare to work' programmes. Evidence from 'work first'/'welfare to work' programmes in the US suggests positive health effects, for example enhanced well-being, are most likely to occur when there is an increase in household income compared with the benefit position. There is also evidence indicating that there may be associated benefits for the health and development of children in households where parents move into employment. This is primarily as a result of enhanced parenting practices, as well as improvements in standards of living. For families with young children ensuring good quality childcare could potentially maximise the cognitive, social and emotional benefits even further.

However, the long-term unemployed or inactive are less likely to be 'job ready'. The long term unemployed (one year and more) represented 40.2% of EU unemployment as a whole, more than 50% in Greece and Italy, less than 25% in Denmark, Austria, Finland, Sweden, the United Kingdom, Norway and Switzerland. Evidence from studies evaluating US 'work first'/'welfare to work' approaches indicates that the 'hard to employ' quintile were more likely to be placed in low paid jobs. When the income from work was less than the income on benefit, there were poor prospects and the job was of poor quality, the mental health of participants deteriorated. There were also negative impacts on children, including a reduction in cognitive development and school performance and an increase in anti-social behaviour. Very severe impacts on living conditions and health service use were also reported in the US when financial assistance was withdrawn after 6 months or sanctions were applied, for example, if participants refused a job.

Other potential health impacts from the move from unemployment or inactivity to employment could be changes in health-related behaviour and health service use. The changes in health-related behaviour could be either positive or negative; there was insufficient evidence to predict these with any reliability. Similarly it is not possible to predict the change in health service activity, however it is probable that the frequency of use will change, which has implications for out of hours provision. In addition the focus on reducing inactivity due to ill health will undoubtedly impact on primary care professionals from the General Practitioners' initial certification to chronic disease management with practice nurses and rehabilitation with occupational therapists. The 'unemployment/inactivity to employment transition' may also have a number of stages in terms of the effects on mental and physical health; for example there may be an 'Anticipation Phase' for participants waiting to start a programme or be seen by a Counsellor or Personal Advisor. Analysis of other international welfare reforms suggest contextual factors appear to influence the impacts of interventions on participants, for example, when the changes are perceived as a net loss (financial, education, choice, esteem) or are introduced relatively quickly, the impacts on participants are more negative. This is reminiscent of the effort-reward imbalance model that has been used to explain the effects of psychosocial work characteristics on health outcomes. It is clear that more work needs to be done to construct a model explaining the relationship between different 'employment transition' factors and their impact on health.

Conclusion and Recommendations

Conclusion

The EES is likely to have contributed to a range of employment-related impacts during 2003. It is difficult to isolate the specific contribution of different elements of the EES from each other and from the impacts of different policy measures at Member State level; on top of this there are various other labour market and economic influences. However, there is evidence to support the impact of the EES on employment policy at national level. The extent of this influence seems to vary from providing a policy framework, to consolidation of policy plans, to no influence (policy in progress). In addition some Member States may prioritise particular employment policy objectives, for example, social cohesion, more than others. How Member States implement the objectives and meet targets is another variable.

It is probable that there will be employment gains in the EU in 2003. The extent of these gains is likely to vary in Member States and is not likely to make significant differences to their relative employment rates. Employment gains for women and older people are also likely, but in some Member States more than others. There was a paucity of comparable employment data for ethnic minority groups, people with disabilities and on people with chronic ill health conditions to comment on in detail.

There will be positive impacts on population health associated with these employment gains. These will include long-term reductions in all cause mortality. Improvements in mental health are also possible in the short term. There may also be improvements in the health and development of children when household income increases, however these health impacts are speculative. Associated with the likely differential gains in employment are differential health gains. Some areas (e.g., Greece) and population groups (e.g., women) who may gain least in employment terms also have poorer self-reported health.

There is speculative evidence as to whether 'job quality' is improving (e.g., the incidence of injuries from accidents at work is falling) or getting worse (e.g., the incidence of work-related stress is increasing). 'Job quality' is associated with productivity and performance. Poor 'job quality' is also associated with poor health; workers in poor quality, low paid, precarious jobs have similar health scores to the unemployed.

Social cohesion may possibly improve in some Member States; however this is by no means universal. There are concerns that these employment gains are not being as universally shared as they could be which will have impacts on social cohesion and ultimately on health.

Developments in flexible labour markets in the EU are likely to increase; this includes the likely increase in employment flexibility, for example part-time and fixed term/temporary work. Part-time work is associated with positive health impacts, including less sickness absence and stress compared with full-time workers. It has been estimated that a 15% shift from full-time to part-time working could reduce the incidence of reported sickness absence by 530 000 across the EU. Part-time work is also associated with various poor quality job indicators, including low income, fewer career opportunities, poor working conditions.

People in fixed term/temporary work report poorer health compared with permanent workers. There is a direct association between contract status and health although it is not a causal relationship. Employment flexibility that results in a reduction in perceived job security (e.g., permanent to fixed term contracts) or losses in valued aspects of work may also have negative health effects, for example, increased job dissatisfaction, changes in health-related behaviour, reduction in mental well-being, increase in cardiovascular effects.

Increases in numerical flexibility may have implications for redundancy in the future. This will have health implications in the early stages of employment. However, the impact of

the employment-unemployment-employment transition is unknown and has not been investigated in detail.

It is probable that the unemployed will be guided into various active labour market interventions, although there appear to be different emphases in Member States as to the intervention type (e.g., 'work first', training), different success rates regarding early interventions and various impacts associated with the interventions themselves. Impacts on participants may include increasing confidence, increasing motivation, and reducing anxiety. Socio-economic impacts may include increasing employment, social inclusion and human capital. These impacts are associated with both direct and indirect positive effects on population health.

'Work first' approaches are more likely to benefit 'job ready' participants. There are concerns that an over-emphasis of this intervention may have detrimental effects on the mental health of participants who are not 'job ready'; without adequate alternative interventions, it may also potentially exclude people who are not 'job ready'. There was some evidence that when the transition from benefit to employment results in an increase in household income there are positive health benefits to the participants and their children; however the opposite is true when there is no increase in household income. No data was available on the participants who exit active labour market interventions and leave benefit, but who are unemployed. There may be severe impacts on poverty and health for these individuals and their families.

Recommendations

Reduce the negative health effects of labour market inequalities by:

- Emphasising the priority to reduce labour market inequalities (LMI) between regions and population groups.
- Harmonising and collecting data (e.g. employment, health - see ECHI 2 indicator set) for different population groups, (e.g. ethnic minority groups, people with disabilities and on people with chronic ill health conditions) to enable monitoring and comparative analysis.
- Supporting action to develop a comprehensive picture of the underlying causes of these LMI within and between countries.
- Monitoring action to reduce LMI to ensure this is focused at underlying causes.
- Extending support for action to reduce LMI (e.g., EQUAL).
- Monitoring the enforcement of anti-discrimination legislation.
- Working towards the development of targets for reductions in LMI for a wider range of population groups and regions in the next Guidelines.

Increasing the positive impacts on health by improving 'job quality' by:

- Making explicit the importance of improving job quality, for example, publish triannual reports on performance of Member States against the 10 'job quality' indicators.
- Exploring the possibility of developing an overall 'job quality' index score based on the 10 dimensions and reporting on performance of Member States.
- Improving the psychosocial work environment and employee health by actively promoting evidence-based approaches, for example:
 - demonstrating management commitment to improving working conditions and worker health
 - providing worker support from managers, co-workers and unions
 - developing worker participation in the planning and implementation of individual business objectives.
- Review the UK Health and Safety Executive's pilot of Management Standards for Reducing Stress in the workplace, for application at EU level.

Increase the positive and reduce the negative health effects of labour market flexibility by:

- Actively promoting 'quality jobs' including characteristics that increase control, support, information.
- Supporting more detailed research into the health effects on different workers and population groups of :
 - Part-time and fixed term work
 - Organisational and job security changes
 - Improving work-life balance measures.
- Supporting more detailed research into the health effects on different workers and population groups of the employment-unemployment-employment transition.
- Supporting the introduction of early health care interventions for newly unemployed.

Enhance the positive and reduce the health effects of active labour market policies (ALMP) by:

- Encouraging a range of ALMP to cater for different participant needs.
- Supporting pilots reducing the time before unemployed enter active labour market policies, for example, by introducing an interview with Public Employment Sector advisor as soon as the unemployed or inactive register for benefits (as New Zealand model).
- Supporting pilots identifying each participant's labour market barriers (including health) and holistic action planning to address labour market barriers (New Zealand and Iceland models).
- Supporting pilots focusing on the inactive with chronic health conditions.
- Supporting pilots developing specialist Public Employment Sector advisors to provide support and guidance to those groups most disadvantaged in the labour market (people with health problems, from ethnic minority groups, or without basic skills).
- Undertaking prospective research to identify the short and long term health effects of 'welfare to work' programmes, including mixed programmes.
- Collecting data on the short and long term effects of 'welfare to work' programmes on household income.
- Collecting follow-up data on unemployed programme 'leavers' who do not re-register for benefits.
- Considering the potential health impacts of 'welfare to work' programmes during programme planning.

Increase the positive health effects of social cohesion by:

- In addition to above, making explicit the importance of social cohesion within the EES.
- Reviewing EC procurement policies regarding contractors requirement to submit evidence of their employment policies, for example, equality and diversity.

Enhance the impacts of the European Employment Strategy by:

- The systematic and regular evaluation of the EES, for example triannually.
- Building on the open method of policy co-ordination to share good practice between Member States.
- Considering the potential health impacts of employment policy during policy planning, for example, applying 'EPHIA' to future Guidelines.

5 Evaluation Of The HIA Pilots

5.1 Introduction

The partners evaluated the process of conducting the HIA pilots referring to researcher diaries that had been maintained throughout the Project. The objective was to systematically and critically review all aspects of the draft EPHIA methodology in light of the experience of conducting the pilots. This section describes the evaluation framework and the refinements made to the draft EPHIA.

5.2 HIA evaluation framework

An evaluation framework was designed by the Research Group around the following criteria:

Effectiveness

To what extent were the planned outputs of the HIA achieved?
Are some methods more effective than others?

Efficiency

What costs (financial, time) were associated with the various HIA project tasks?

Equity

To what extent did the project emphasise reducing health inequalities?
Are health inequalities central or integral to the methodology?

Participatory and transparent

Is the methodology clear about the aims, potential benefits and practicalities of participation?
How practicable were the participatory approaches outlined in the methodology?

Practicability

Will it meet the requirements of decision-makers?
Is it practicable for policy makers with limited time and resources?

Using these criteria and other guiding questions, the partners conducted a detailed line-by-line review of the draft EPHIA methodology and revised where necessary.

5.3 Overview of refinements to EPHIA

Some of the most important revisions to the methodology included:

Practical orientation

The refined version is more practically orientated with practical examples of conducting aspects of the methodology to help demonstrate ease of use, such as data collection, participatory methods and health impact analysis.

Emphasising flexibility

The flexible nature of the methodology and the ability to select appropriate methods was emphasised to prevent misconceptions that it was necessary to implement all aspects of the methodology

Focus on ease of use

To enable decision-makers in the European Commission with limited time and resources to undertake HIAs quickly, a 'Rapid HIA procedure' was added to the methodology.

Addresses the complexity of European Policy making

Material was added concerning the potential variety of health impacts in different countries and regions of Europe and the relative benefits and trade-offs of conducting EU-wide and nation state HIAs.

5.4 Main Challenges to Implementing EPHIA

5.4.1 Profiling data in different countries

The advantages originally envisaged by a core European data set were not fully realised and the methodology was amended to reflect this. Profiling involves the selection of data sets on the population likely to be of relevance to the HIA. The Research Group originally decided to use a core set of indicators on population, general health, work and income and occupational health and collected data (from databases such as EUROSTAT and OECD) that would be comparable between the countries. However, many data were not available for all countries, or indicators were not always comparable between countries. The core data set had to be supplemented by searches in national databases. Also, the relevance of the European core indicators for the national pilot HIAs differed widely, with the focus of data collection being largely guided by the policy priorities at Member State level. The implementation of these policies may have different health impacts in different European countries or regions, due to different baseline measurements of health (e.g. life expectancy) or different levels of economic development.

A core comparable data European profiling data set while useful is more likely to supplement rather than bypass the collection of data at Member State level.

5.4.2 Scarcity of data

The project group found that there is frequently a scarcity of data on the direct health impacts of European policy. This emphasises the importance of participatory approaches such as stakeholder workshops, interviews and other methods in collecting primary data where data gaps exist.

5.4.3 Mathematical modelling

The German partners in the project experimented with mathematical modelling to illustrate future potential health impacts resulting from increased labour market flexibility. The scope for precise quantitative prediction of health impacts resulting from European policy is often limited due to the presence of a wide range of unpredictable variables. However, the project team found modelling exercises very useful for presenting the potential health impacts of certain policy scenarios and for attracting attention and provoking debate among stakeholders. This important role in EPHIA is emphasised in the revised methodology.

5.4.4 Policy analysis

Given the principle of subsidiarity within the EU, the European Commission depends largely on Member States to implement its policies. The SANCO Research Group considered policy both at EU and at Member State level. Using EPHIA to analyse policy only at the EU level will be relatively quick. Analysing the policy instruments used at Member State level to implement these EU policies will result in a more sophisticated end product but is resource-intensive. The experience of the Research Group is also that stakeholders in Member States are more familiar with national policy instruments than with the EU policy itself. These trade-offs are emphasised in the revised EPHIA methodology.

5.4.5 Participatory methods

The EPHIA methodology emphasises the importance of stakeholder participation when conducting an assessment. It aids the collection of data, promotes ownership of the HIA,

helps build links between different policy makers and raises awareness of the potential health impacts of European policy making.

From a democratic point of view the direct involvement of population groups (e.g. through public meetings) affected by the policy would be ideal. However, recognising that time and resources will frequently be limited for EU Policy assessment, the refined EPHIA methodology also suggests the common alternative of involving representatives of these groups.

Particularly important is the participation of the policy proponents. The experience of the Research Group was that this participation can be difficult to achieve. Some of the reasons for poor participation may be logistical (e.g. time pressures, competing priorities for more pressing projects, distance to travel etc). However, particularly at the European Commission level, the obstacles to the participation of policy proponents in the HIA pilot had consequences for the assessment process and outcomes. Dissemination of the Project findings, a higher profile for EPHIA and health impact assessment of EU policies may help overcome these institutional barriers to inter-disciplinary working.

6 European Policy Health Impact Assessment Methodology

6.1 Introduction

The Health and Consumer Protection DG of the European Commission awarded a contract to a team of public health researchers and practitioners from England, Germany, Ireland and the Netherlands following a call for proposals in 2001 (2001/c147/06). The remit was to develop a generic methodology on health impact assessment (HIA) for use in EU policy development. This, in part, contributes to the European Council's commitment under Article 152, Treaty of Amsterdam, (EC, 1999) by developing methods and procedures to ensure that human health is protected in EU policy development and implementation.

In addition it supports the EC Public Health strategy (EC, 2002a), which includes objectives to establish pilot projects to develop and use HIA methodologies to assess the health impact of Community policies and actions. The 'Policy Health Impact Assessment for the European Union' project is one such project.

This 'EPHIA' methodology has been developed for the European Community and its institutions, and provides a guide to assessing or commissioning an assessment of the impacts of EU policies on human health. It is also applicable to EU policy development at Member State level, for HIA practitioners and commissioners.

This section:

- presents the features of the EPHIA methodology,
- summarises the EU Policy HIA project and how EPHIA was synthesised, piloted and amended,
- describes the EPHIA methodology's underpinning concepts and principles,
- provides a step-by-step explanation of the procedures and methods.

6.2 The Policy HIA for the European Union Project

The aims of the Project were to:

- develop a standard generic methodology for HIA of EU policies and activities,
- apply this HIA methodology to selected EU policies,
- disseminate the outputs and the lessons learned from the Project by means of seminars, publications and high-level briefings.

The specific objectives of the Project were to:

- search for, identify, collect and review HIA methodologies and methods,
- pilot and refine the new HIA methodology,
- identify, screen and select an EU policy for HIA,
- apply the new HIA methodology to the selected EU policy,
- disseminate the findings from the HIAs and the lessons learned about HIA for EU policy to EU policy-makers and Member States.

The development of the generic EU policy HIA methodology used a systematic and rigorous approach involving the following steps:

- An extensive search and collection of HIA documents.
- Developing an HIA classification framework to facilitate selection of HIA tools from collected material.
- A review and classification of HIA documents using the classification framework.
- Developing a draft EPHIA methodology following the synthesis of HIA material.
- Selecting the European Employment Strategy as a pilot policy to test the draft EPHIA methodology following an extensive selection process.
- Conducting pilot HIAs in Member States and EU-wide using the draft EPHIA methodology.
- Systematically evaluating the draft EPHIA methodology following pilot HIAs.
- Refining the EPHIA methodology in light of the experience of the HIA pilots.

6.3 Key EPHIA concepts and principles

Health and well being

It is generally acknowledged that health is more than the absence of illness or disease; it is about the physical, mental, social and spiritual well being of people. At every stage of life, health and well being are affected by complex interactions between social and economic factors, the physical environment and individual behaviour, as well as by hereditary factors. Factors such as income, employment, housing, access to basic services such as education and facilities such as shops are *determinants of health*, as they influence the degree of health, wellbeing, or *health outcomes*, achievable by individuals and communities. This concept of health and what affects it is referred to as a social model of health (Black, 1980; Acheson et al, 1998). The determinants of health are illustrated as layers of influence in Figure 4 (Whitehead & Dahlgren, 1991). EPHIA has adopted a social model of health as an underpinning concept.

Figure 4 The main determinants of health



Some individuals and groups of people experience systematically better, or worse, health than others. This is referred to as health inequalities and reflects the differential exposure across the life span to health risks associated with factors such as socio-economic circumstances, ethnicity and gender.

Within each main category of health determinants, there is a range of specific health determinants. Some examples of these are in Table 7.

Table 7 Examples of specific health determinants

Categories of health determinants	Specific health determinants
Socio-economic, cultural & environmental conditions	<ul style="list-style-type: none"> • International, national and local public policies (e.g. economic, health, employment, education, defence, transport, housing, foreign, immigration, welfare policies) • International, national and local public/population-based services (e.g., emergency services, policing, health and social care, immigration, education, transport, welfare, child care, leisure) • Expressed/perceived social/cultural values and norms (e.g. discrimination, fear of discrimination, attitudes to different population groups, equity and fairness) • Relationship between state and citizen
Living and working conditions (physical environment)	<ul style="list-style-type: none"> • Housing (e.g. conditions, availability) • Working conditions (e.g. exposure to hazards) • Quality of air, water, soil • Noise • Waste disposal • Energy use and sustainability of resources • Land use • Biodiversity • Accessibility to people, places, products
Social and community influences (socio-economic environment)	<ul style="list-style-type: none"> • Social support and integration • Social exclusion • Community spirit • Community involvement in public policy decision-making • Employment (e.g., availability, quality) • Education/training (e.g., availability, quality, affordability)
Individual lifestyle factors	<ul style="list-style-type: none"> • Personal behaviours (e.g. diet, activity, smoking, alcohol consumption, drug misuse) • Personal safety • Employment status • Educational attainment • Income, including disposable income • Self-esteem and confidence • Attitudes, beliefs - 'locus of control'
Biological factors	<ul style="list-style-type: none"> • Age, sex, genetic factors

6.4 What is Health Impact Assessment?

Health Impact Assessment (HIA) has been defined as a combination of procedures, methods and tools by which a policy, programme 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 (Lehto & Ritsatakis, 1999). It aims to identify the potential changes in health determinants from a new policy or project, and the effects these changes on the health of a population. Whilst health is improving across Europe as measured by average life expectancy, health inequalities between certain population sub-groups are widening, particularly between affluent and poor socio-economic groups. By assessing the differential distribution of health impacts across the population, HIA can analyse the effects on health inequalities. EPHIA aims to inform and influence the policy development process and add value to European policy by enabling decision-makers to consider the health implications of their policies.

6.5 Principles and values of the EPHIA methodology

The principles and values underpinning EPHIA reflect those identified in HIA work elsewhere (including Hirschfield et al, 2001; Douglas et al, 2001; Lehto & Ritsatakis, 1999).

EPHIA is a **collaborative** process whose benefits are best realised through **shared ownership** by the DG proposing the policy and DG SANCO. EPHIA has been designed to be **practicable** and the methods chosen for each assessment should be appropriate for the time and resources available. The process should be as **democratic** as possible, with the interests of population groups reflected either through representatives or through direct **public involvement** of community members themselves. EPHIA is concerned with **reducing health inequalities** and should assess the differential distribution of health impacts across the population. It should be **objective** in its identification of evidence of health impacts and data collected should be based on recognised research quality standards. It should be **transparent** with methods and procedures clearly stated. Recommendations developed through EPHIA should be **practicable** and achievable and should consider both short and long-term health impacts.

6.5 HIA and Health Inequalities

EPHIA can make a significant contribution to reducing health inequalities by informing policy-makers about the potential impacts of a proposed policy on different population groups.

Health inequalities should be a focus in all stages and methods of EPHIA. For example, population profiling should include data on vulnerable population sub-groups. Data should be analysed both at population and sub-population levels. Recommendations should aim at 'levelling up', or improving the health of the least healthy population groups to that of the most healthy.

Box 1 Health inequalities

The term health inequalities refers to unjust and avoidable health differences between population groups. The term *socio-economic health inequalities* refers to the fact that people with a low socio-economic status live shorter lives and have worse health than others. Another widely used term is *vulnerable* groups, meaning people who run a higher risk of health damage. Vulnerability may be due to age (children, old people), or health situation (e.g. chronically ill people, pregnant women) or due to social (e.g. membership of an ethnic minority group) or economic disadvantage. Finally there are gender based differences, which cut through all other (health) inequalities.

When discussing health inequalities or differences this includes not only health status but also risk factors such as life style aspects (e.g. smoking, lack of exercise).

Examples of population sub-groups in the EPHIA pilots included:

- Women
- Older people
- People with disabilities
- Black and Minority Ethnic
- Groups
- People with low qualifications
- Lone parents

6.6 EPHIA options

The methodology can be used at different depths of assessment that require different resource inputs. The selection of which depth of assessment to undertake depends on the context, Decisions about the depth of the assessment may depend on the status and complexity of the policy or on practical considerations such as the time available to influence the policy or the availability of evidence or data. Some questions to help decide on the depth of the assessment are defined in Table 8.

These are three examples of different depths that could be applied

Desk-based EPHIA

- provides a broad overview of possible health impacts
- could be used at early policy development stage (e.g. green paper) or where limited time/resources are available
- involves collecting and analysing existing, accessible data
- takes approximately 2-6 weeks (for one assessor)

Rapid EPHIA

- provides more detailed information of possible health impacts
- typical or most frequently used HIA approach
- allows more thorough investigation of health impacts, increases reliability of impacts
- involves collecting and analysing existing data and some new qualitative data from stakeholders and key informants
- lasts approximately 12 weeks (for one assessor)

In-depth EPHIA

- provides comprehensive assessment of potential health impacts
- most robust definition of impacts, but least frequently used - the 'Gold standard' of HIAs
- involves collecting and analysing data using multiple methods and sources (quantitative and qualitative, including participatory approaches involving stakeholders and/or their representatives and key informants)
- lasts approximately 6 months (for one assessor)

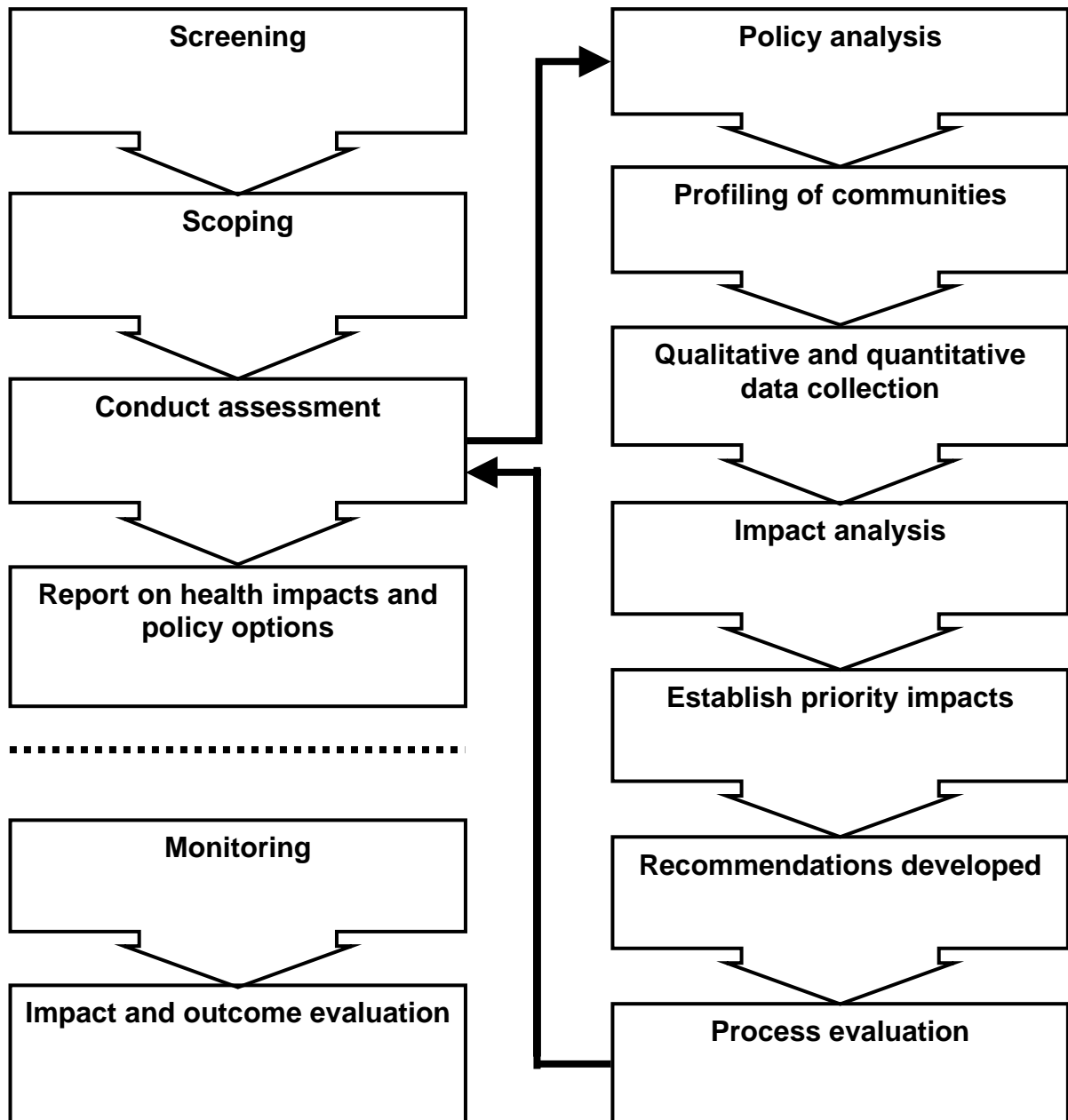
Table 8 Guidance on how to decide what depth of EPHIA to employ

1. When does the EPHIA report have to be completed?	If less than 6 months, probably desk or rapid
2. Who will be the EPHIA assessor/s?	If in-house, probably desk or rapid
3. What funds are available for EPHIA?	If resources available more choice of assessors and depth
4. Is the policy a key policy (e.g., type, topic, investment)? Are there significant policy changes proposed?	In-depth
5. Does screening suggest significant potential health impacts of the policy change?	In-depth
6. What data associated with the policy is available and accessible? What is the health evidence-base on the policy topic?	If more data, in-depth
7. What is the level of political and/or public interest?	If more interest, in-depth

6.7 EPHIA procedures and methods

Figure 5 illustrates the procedures and methods that make up EPHIA. The left hand side contains the main steps to be carried out during a Health Impact Assessment. The right hand side gives more details of the methods that are used when conducting an assessment. Some of these steps may be carried out concurrently with information gathered at one step feeding in to other steps.

Figure 5 Schematic representation of EPHIA



Screening

Screening is the first stage in identifying policies for assessment by EPHIA. It enables a quick judgement to be made about the potential effects of the policy on the health of a population. Various tools and checklists have been developed including the screening tools of the Greater London Authority (GLA, 2001) and the Merseyside Guidelines (Scott-Samuel et al, 2001). The European Commission could do this using the Preliminary Assessment tool (Commission of the European Communities, 2002).

Scoping

Scoping involves designing and planning the HIA. Ideally it entails convening a steering group as a first step. The steering group's role is to define a Terms Of Reference (TOR) for the assessment, to identify who will conduct the assessment (assessors) and to project manage the HIA. This should be clearly documented for each HIA. The TOR of the HIA should include the aims, objectives and methods of the HIA, the scope (including the depth of the assessment, geographical and time boundaries, policy context), projected outputs, resources and a timetable. Definition of the TOR may be an iterative process with the steering group revisiting them as the HIA progresses.

Potential steering group members include the policy proponent, other stakeholders (individuals or groups who have a 'stake' in the policy under investigation), key informants ('experts' or 'specialists' in the specific policy field) and the assessors. Table 9 provides an example of membership of a Steering Group that was convened for one of the pilot HIAs for this project on the European Employment Strategy. It illustrates the range of stakeholders that are involved in Employment policy making.

Table 9 Stakeholder and Key Informants in the UK EPHIA pilot of the European Employment Strategy (* Steering group invitees)

Stakeholder/Key Informant Category	Stakeholder/Key Informant
Organisational stakeholder - health	Department of Health* Health Development Agency* Health and Safety Executive
Organisational stakeholder - policy proponents	Department for Work & Pensions* Department for Education and Skills* Department of Trade & Industry*
Organisational stakeholder - relevant to policy	Department for the Environment, Food and Rural Affairs Office of the Deputy Prime Minister
Organisational stakeholder - regional government	North West Development Agency
Organisational stakeholder - social partners	Confederation of British Industry* Trade Union Congress* Chartered Institute of Personnel Development
Organisational stakeholder (NGO/VS) - special interest groups	Commission for Racial Equality Equal Opportunities Commission Disabilities Rights Commission Low Pay Commission University of the Third Age National Unemployment Centres
Key informants - Employment & health	University College, London* European Foundation for Improvement of Living & Working Conditions*
Key informants - Employment	Manchester Business School* Institute for Employment Research

Following the development of an outline TOR by the HIA steering group, the range of skills and expertise needed in the assessment team will be known. With appropriate training most desk-based or rapid EPHIAs could be undertaken 'in-house', for example by DG SANCO in liaison with the DG responsible for the policy. For more in-depth EPHIAs external expertise may be needed. In these cases, it is important that the lead HIA assessor is a public health professional who has been HIA-trained and ideally has experience in conducting HIAs. Other skills will vary according to the policy type as well as the depth of the assessment.

6.8 Conducting the Assessment

The methods involved in conducting the assessment are described in this section. Given the complexities of implementing European Commission policy throughout Europe and the variety of populations affected, there are different ways ('units of analysis') that the EPHIA methodology could be applied to assess potential health impacts. For example:

Option 1 - At Europe wide level

The health impacts of the policy could be estimated for the European population as a whole (EU-25 post April 2004). This would be suitable for a rapid desktop exercise and for policies that are likely to have relatively uniform health impacts.

Option 2 - At Europe and regional level

The implementation of EU policies is likely to have different health impacts in different European countries by virtue of their different socio-economic and health contexts. However, a regional (for example, Northern, Southern and Eastern Europe) or 'range' assessment (countries with the 'best' or the 'worst' levels for key health determinants, affected by the policy under investigation) could be undertaken. This option could be conducted in-house by accessing centrally available data (for example, through Eurostat) or by assembling assessors from selected Member States.

Option 3 - At Europe wide level and at nation state level

Given the principle of subsidiarity within the EU, the European Commission depends largely on member states to implement its policies. An assessment at Member State level may be deemed more appropriate than a regional approach, due to the significance of the policy or variability across Member States.

The methods used for data collection and analysis will vary according to the depth of the EPHIA. It will always involve the collection and analysis of existing data. However, multiple data collection methods, quantitative and qualitative, involving stakeholders or their representatives and key informants are used in in-depth EPHIA.

Policy analysis

The primary purpose of policy analysis is to inform the HIA design.

It should identify the:

- rationale, context and strategies of the policy,
- populations and sub-populations who are affected, positively or negatively, by the policy,
- key informant and stakeholder sample groups,
- relationship of the proposed policy with other policies,
- results from evaluations of other similar policies.

This could consist of the audit and analysis of three types of documents:

- the proposed policy and supporting documents,
- other policies and official documents that relate to the policy under investigation,
- evidence of the social, economic, political, cultural and scientific context of the policy.

Policy analysis also contributes to the generation of the data set for the profile, question guides for the stakeholder and key informant interviews and topics for the literature search.

Box 2 Example of policy analysis criteria and questions used in the EU EPHIA pilot

Policy development

- What are the issues associated with the policy topic, e.g. employment in the EU?
- How was the policy initiated and developed?
- Who was involved and what are the policy networks?
- How were decisions made when finalising the policy content?

Policy content

- What are the policy's proposed aims, objectives, interventions, targets, timescales and funding?
- Who does the policy affect?
- Does the proposed policy address the identified issues?
- Are the proposals evidence-based?
- What are the values and theoretical model underpinning the policy?

Policy implementation

- What are the opportunities for and challenges to the effective and efficient implementation of the policy. e.g. communication, synergy between policies, adequate resources, supportive culture, political will?
- What are the political ramifications of the policy's implementation e.g. what are the electoral consequences?

Health in policy planning

- What considerations of the health effects of the proposed policy were taken on board?
- What is the relationship between the policy theme (e.g. employment) and health outcomes?

Profiling

The purpose of profiling is to give a picture of the health and socio-demographic context of the policy in order to understand better its potential health impacts and the population groups that may be affected. Profiling involves collecting data on a number of indicators that are expected to be relevant to the policy selected and its possible impacts on health or health determinants. Indicators are measurable variables that reflect the state of a community or of persons or groups in a community. The profile would ideally consist of data showing trends over time. An indicator set for a community profile could include indicators concerning:

- **population**, e.g. EU, member state, population sub-groups,
- **health status** - e.g. mortality rates, perceived health & well being,
- **health determinants** - e.g. housing conditions, employment status, air quality, social support, access to health care services, diet and activity.

Box 3 Examples of indicators

Examples of *health* indicators that were included in the HIA pilot of the European Employment Strategy:

- Healthy life expectancy at birth
- Proportion of population who are disabled
- Occupational morbidity

Examples of *health determinant* indicators:

- Population by occupational class
- Proportion of unemployment/inactivity
- Proportion employed by status
- Trends in employment

Data for the indicators selected can often be found in international databases such as: EU Statistics - Eurostat: <http://europa.eu.int/comm/eurostat/Public/datashop/print-catalogue/EN?catalogue=Eurostat>

Organisation of Economic Co-operation and Development statistics- OECD Statistics Portal: http://www.oecd.org/statsportal/0,2639,en_2825_293564_1_1_1_1_1,00.html (hard for anyone to type this level of detail in their viewfinder)

World Health Organisation Statistics - WHO Statistical Information System (WHOSIS): <http://www3.who.int/whosis/menu.cfm>

National level statistics – United Nations Statistics Division

The following site contains links to every available (UN) national statistics site in Europe and the rest of the world: http://unstats.un.org/unsd/methods/inter-natlinks/sd_natstat.htm

If an EPHIA is being undertaken at EU and national levels, involving national data sources the operational definitions of indicators should be the same wherever possible. The European Community Health Indicators (ECHI) are a comprehensive indicator set compiled from various data sources which is in the process of being defined and these will enhance comparability between Member States in the future.

The information gathered during policy analysis and profiling will generate a clearer picture of the most important and relevant aspects of the policy in terms of health. This will usually lead to the focus of the HIA being further refined and defined. As a

consequence, during the HIA the initial profile produced may be refined. Some indicators may prove less relevant while others that were at first not included, are added.

Box 4 Adapting the community profile: example from the Netherlands EPHIA of the European Employment Strategy

The initial community profile in the HIA of the European Employment Strategy contained a number of basic indicators on demography, health status and employment. In the Netherlands, during the subsequent data collection phase, one of the topics that arose was employment policy aimed at discouraging early retirement. Therefore two extra indicators were added:

- Average retirement age.
- Proportion of the population between 55 and 56 years that are employed.

Qualitative and quantitative data collection

During the data collection stage, evidence of the effects of the policy on health determinants and health outcomes is gathered. Generally, the only new data used in most HIAs is gained through the participative qualitative approaches mentioned below. It is often not necessary or practical to collect new quantitative data. Available resources such as health and environmental reports can often be utilised. Also, data from previous studies can be further analysed, Systematic reviews of available research are a particularly useful way of gathering evidence. If systematic reviews on specific interventions are not readily available, a general review of available literature can be carried out. In the case of a desktop EPHIA, data collection would be probably limited to a literature review while an in-depth EPHIA could employ multiple methods to generate new data.

Box 5 Types of evidence from the literature

Not all data from research are evidence. The quality and strength of evidence are dependent on the research design and this applies to qualitative and quantitative research. The strongest evidence is provided when different research studies are combined in a *systematic review*. Sources for systematic reviews available on the internet are shown below. They have different emphases on the type of research reviewed. For example, York (UK) and Cochrane (international) focus on reviews of the effectiveness of clinical interventions, whereas Campbell concentrates on reviews of socio-economic interventions. The HDA (England) reviews the effectiveness of, for example, lifestyle and regeneration interventions on public health and health inequalities.

Cochrane Centre <http://www.cochrane.org/index0.htm>

Campbell Collaboration <http://www.campbellcollaboration.org/>

Health Development Agency (HDA) <http://www.hda-online.org.uk/html/research/evidencebase.html>

Health Evidence Network <http://www.euro.who.int/HEN>

Medical Research Council www.msoc-mrc.gla.ac.uk

University of York - Centre for Reviews and Dissemination <http://www.york.ac.uk/inst/crd/>

WHO <http://www.who.int/en/> WHO Europe <http://www.who.dk/>

If systematic reviews are not available, less comprehensive literature reviews could be undertaken on relevant studies collected from a comprehensive search (e.g. a computer search from appropriate databases). Issues to be considered when reviewing literature include:

Was the research design clearly defined? Were ethical considerations presented, including conflicts of interests of researchers? Were the methods and tools used appropriate? Was sample group and size appropriate?

Were the results clear and adequately reported and discussed?

Are the limitations of the study presented? Can the results be generalised? Do the conclusions relate to the findings? Are the implications of the research discussed?

The purpose of participatory, qualitative approaches is to gather evidence from the experience, knowledge, opinions and perceptions of populations affected by the policy (stakeholders) and people with expert knowledge (key informants). This evidence:

- provides a more in-depth picture of the range of health determinants affected by the policy;
- provides a detailed understanding of how they think this impacts on health outcomes and why;
- contributes to prioritisation of impacts;
- provides a perspective on health inequalities.

Wherever possible, representatives of potentially affected population groups should be involved. This is resource-intensive and so is only appropriate for rapid or in-depth EPHIA. Sampling of stakeholders and key informants to incorporate a comprehensive range of perspectives is important. Political Mapping is one method that could be used to

identify and categorise the stakeholders and ensure involvement from each category. Box 6 describes the methods used to generate the samples in the UK EPHIA pilot, once the stakeholders and key informants were defined.

Box 6 Examples of sampling methods used in the UK EPHIA pilot of the European Employment Strategy

Purposive sampling methods were used to generate the initial organisational stakeholder and key informants groups, followed by snowball sampling. Purposive sampling is a non-random sampling method, which aims to sample a group of people with a particular characteristic - in this case,, people involved in the development and implementation of employment strategy (including the National Action Plans and EES Employment Guidelines).

Snowball sampling involves an initial group of respondents (such as the stakeholders and key informants) identifying others they know have a similar characteristic (such as an involvement or interest in employment strategy).

Data collection methods could include focus groups, semi-structured or unstructured interviews (Knodel, 1993). Semi-structured interviews were used in the UK EPHIA pilot on the European Employment Strategy. The tool used for these interviews is in Table 10.

Table 10 Example of a tool for interviewing

Employment Question Themes	Employment and Health Question Themes
Unemployment trends in the UK, such as: <ul style="list-style-type: none"> • Population sub-groups most affected? Why? How? • Effects on quality of life? Priorities to address? 	Effects of unemployment on health and well being, such as: <ul style="list-style-type: none"> • Physical and psychosocial health and well-being? • Population sub-groups most affected? Why?
Employment trends in the UK, such as: <ul style="list-style-type: none"> • Employment types? • Low pay? • Employee involvement? 	Effects of employment on health and well being, such as <ul style="list-style-type: none"> • Employment types most affected? • Socio-economic work environment - low pay, employee involvement ? • Other working conditions?
Effective interventions to reduce unemployment, such as: <ul style="list-style-type: none"> • Long-term unemployment? • Economically inactive? 	Effects of interventions to reduce unemployment on health and well being, such as: <ul style="list-style-type: none"> • Incapacity benefit claimants' interviews? • Child care provision?
Effective employment interventions to:, <ul style="list-style-type: none"> • Increase productivity? • Increase innovation? 	Effects of employment interventions on health and well being, such as: <ul style="list-style-type: none"> • Increased flexible working for employee - work- life balance? • Increased flexible working for employer - employment status? • Employee involvement?
Potential effects of the EU Employment Guidelines in the UK such as: <ul style="list-style-type: none"> • EES/Guideline targets? • Other health determinants - average income, educational attainment etc 	Potential effects of the EU Employment Guidelines in the UK, e.g. <ul style="list-style-type: none"> • EES/Guideline targets, on health and well being?

Other qualitative methods can be used to establish consensus in defining priority impacts. These are described in box 7.

Box 7 Examples of qualitative methods to establish consensus

Delphi techniques

This involves a postal questionnaire with open-ended questions to obtain the ideas and attitudes of large numbers of people anonymously on particular topics. The responses are analysed and fed back as a second questionnaire with a limited number of topics or statements to a panel of experts for ranking. The rankings are then summarised in another questionnaire and circulated to the original participants asking them to rank their level of agreement. These re-rankings are analysed to assess the degree of consensus. If there is a substantial difference a further cycle of feedback is undertaken.

Consensus development panels

These are also called consensus development conferences. They involve organising meetings with panels of experts in a particular field, lay people or mixed groups to discuss specific topics, usually with the aim of improving understanding or developing a consensus in an area. In addition to face-to-face meetings they can also be 'virtual', for example through email discussion groups.

Nominal group process

This is also known as the 'expert panel'. Experts are asked to rank their position on particular topics before meeting. The results are summarised and presented to the participants at a subsequent meeting, together with relevant evidence from the literature. At the meeting they discuss the rankings and the differences. They are asked to re-rank the topics in light of the group's discussion.

A number of different quantitative approaches can be used to estimate changes in health determinants or to quantify the predicted change in health outcomes of some population groups in the future due to a policy's development or implementation. Forecasting, scenario building and mathematical modelling are established methods in other fields. Quantitative data can also be generated using participatory approaches, such as consensus panels. Health economics approaches, such as cost benefit analysis and 'willingness to pay' analysis, can also be employed to quantify the impacts on health.

Impact analysis

The purpose of impact analysis is to identify and characterise potential impacts emerging from the previous steps. Impact analysis involves organising evidence of impacts from the different data sources, qualitative and quantitative, and considering:

- **health impacts** - the health determinants affected and the subsequent effect on health outcomes,
- **direction of change** - indicates a health gain (+) or loss (-),
- **scale** - severity of the impact (mortality, morbidity/injury, well being) and the size or proportion of the population affected (high, medium, low),
- **likelihood of impact** - definite, probable, possible or speculative, based on the strength of evidence (e.g. evidence from systematic reviews is stronger evidence than a literature review) and number of sources (eg literature, stakeholders/key informants, documents),
- **latency** - when the impact will occur - immediate, short, medium or long term.

Matrices are visual tools for organising and structuring the evidence of potential health impacts. The health impact matrix summarises the key health impacts. An example is given in Table 11.

Table 11 An example of a Health Impact Matrix

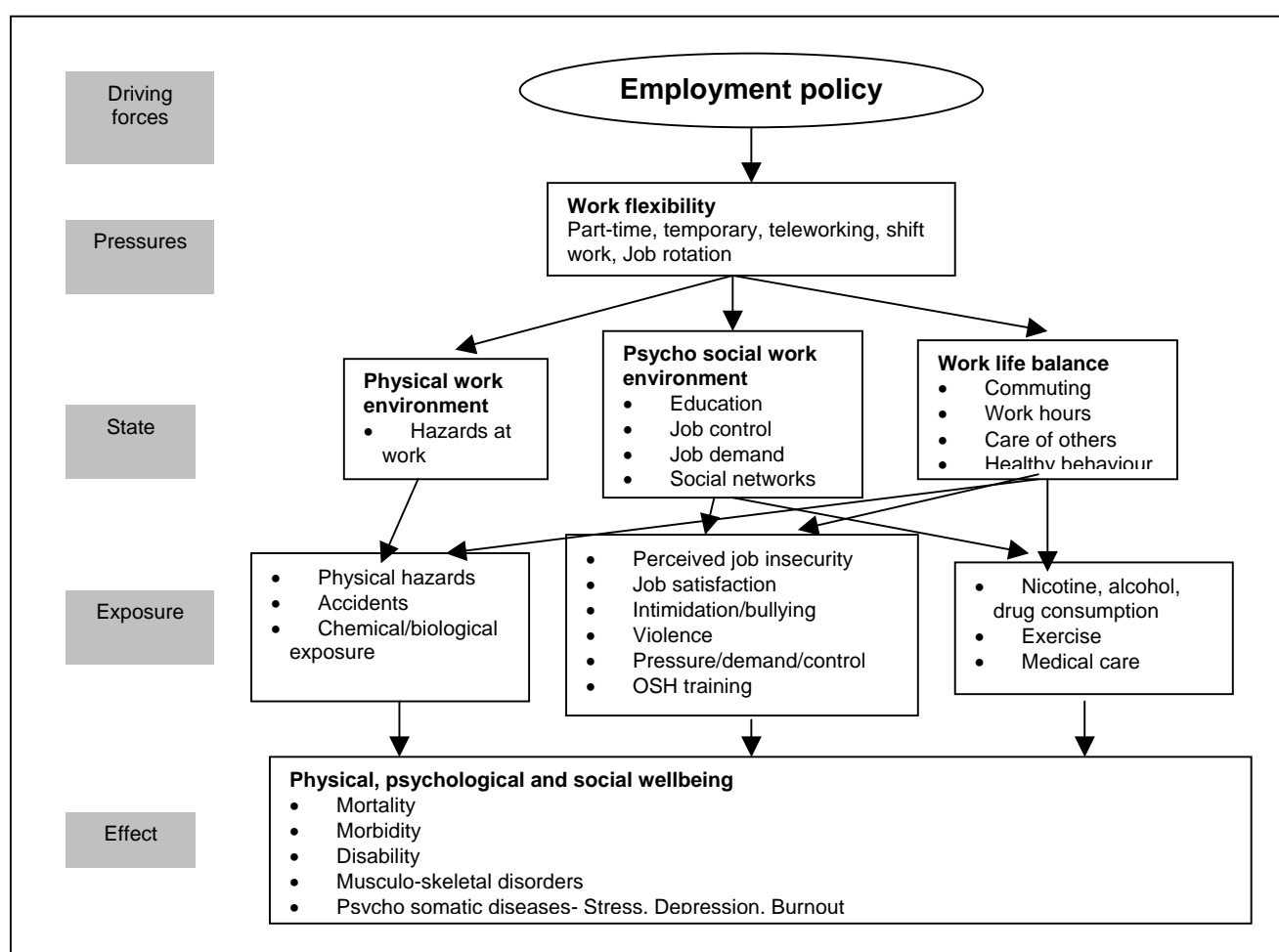
Potential Health Impacts of the EES: employment, job quality, social cohesion

<i>Potential Health Impacts</i>	<i>Direction/ Scale</i>	<i>Likelihood</i>
Increase in employment		
EU		
The EES will contribute to a marginal increase in employment rate		
Reduction in all cause mortality (2-14 year lag);	++	Probable
Improvement in mental health;	+	Possible
Short/long-term health benefits for children in employed households.	+	Speculative
Member States		
Member States will continue to increase employment levels, but some will be at slower rates than others; the EES is unlikely to impact on this maintaining health inequalities between Member States	No change	Possible
Women		
The level of women in employment will continue to increase, but there will be a differential increase in employment for women across the EU; the EES is unlikely to impact on this maintaining health inequalities between Member States	No change	Possible
Older People		
The level of older people in employment will continue to increase, but there will be a differential increase in employment for older people across the EU; the EES is unlikely to impact on this maintaining health inequalities between Member States	No change	Possible
Job quality		
Some indicators of job quality, e.g. injuries from accidents at work, suggest improvements in job quality in the EU		
improvements in productivity and health outcomes	-	Speculative
Other indicators of job quality, e.g. work-related stress, suggests a deterioration in job quality in the EU	+	Speculative
poor health outcomes		
Poor job quality, including low pay can be as detrimental to health as unemployment; the EES is unlikely to impact on job quality	-	Speculative
Social cohesion		
The EES may contribute to increasing social cohesion more in some Member States than others; this partly reflects different priorities of Member States.		
There are many health benefits associated with increased social cohesion: reduction in premature mortality, prevention of illness, increased mental health & wellbeing.	+/-	Possible

An analysis at population and sub-population levels should be included to consider the implications for health inequalities. To do this, the health experience of the population sub-groups under investigation relative to the population average needs to have been established. The local factors (health determinants) affecting the different health states of each population sub-group also need to be understood. Finally the effect of the policy on these health determinants needs to be considered.

Causal webs are also a visual way of depicting the multi-causal relationships of health effects. They are more complex than traditional one-cause, one-outcome analysis. Each link between two causes or between causes and a health outcome can be characterised by a function. The combination of these functions may result in a mathematical model. However it may not always be possible to quantify the entire model.

Figure 6 Example of a causal web for flexible forms of employment



Impact analysis usually involves a number of stages. The qualitative data collected from stakeholders and key informants has to be in order to incorporate it with evidence from other data sources. The UK EPHIA pilot used content analysis (the systematic identification and analysis of key words, phrases and themes in documents, transcripts, field notes and recordings) for this.

Scenarios can be used to forecast possible future changes in health due to the policy proposal. Normally several scenarios will be constructed which can be used to compare the potential health impacts due to different policy implementation options. A minimum of two scenarios will be considered; a basic scenario describing the health situation without

policy implementation at a defined future point in time and a second scenario with assumed full implementation of the policy proposal.

The scenarios could be applied to quantitative models. Modelling will provide an estimation of the magnitude and direction of the potential health impacts. By using alternative scenarios the effect of different policy options can be estimated.

Box 8 Quantifying health impacts: an example from the HIA of the European Employment Strategy in Germany

Scenarios were developed and mathematical modelling was used to predict the magnitude of potential health impacts of fixed term employment on health. An odds ratio reported in literature was applied to the present situation in Germany and 3 future scenarios. The scenarios consisted of a shift in employment of 5, 10 and 15% from permanent to fixed term contracts. The modelling illustrated that a shift towards more people working in fixed term employment could lead to an additional one to four hundred thousand people with poor health status per year.

Changes in reported health status due to shift from permanent full-time contracts to fixed term full-time contracts in Germany

shift from permanent to fixed term contracts	# permanent workers reporting poor health (millions)	# fixed term contract workers reporting poor health (millions)	Attributable cases due to shift towards fixed term contracts (millions)
Baseline	5,6	1,1	0
5%	5,3	1,5	0,1 (99% CI 0.04 –0.22)
10%	5,0	1,9	0,2 (99% CI 0.07-0.44)
15%	4,7	2,3	0,4 (99% CI 0.11-0.66)

Prioritising impacts

Prioritisation involves determining the most important potential health impacts. This can be achieved by using a ranking process. The following criteria may be used for ranking the impacts:

- strength of evidence - considers data sources or type - for example, if there is a convergence of evidence showing similar trends from different sources then it will have a higher priority,
- likelihood of impact - for example, if it is highly probable then it will have a higher priority,
- scale of health impacts - for example, the larger the population affected or more severe the effect, the higher the priority (shaded area of the table),

Severity/population proportion affected	High	Medium	Low
Death	---- or +++++	--- or +++	-- or ++
Illness/injury	--- or +++	-- or ++	- or +
Well being	-- or ++	- or +	negligible

- contribution to reducing or increasing health inequalities - for example if it widens inequalities, it will have a higher priority,
- relevance to existing health priorities and targets.

It needs to be stressed that 'strong' qualitative evidence is as important as 'strong' quantitative evidence. Key informant and stakeholders could be involved in the prioritisation process, for example, using the consensus building approaches in box 6.

Much of the evidence for HIA shows associations rather than direct causal connections between policy actions and health impacts. For example, there is an association between poor housing conditions and certain types of illness but there is disagreement about whether one directly causes the other. To address this issue, HIA adopts the precautionary principle. This means that where there are threats of serious damage to health, a lack of full scientific certainty should not be used as a reason for postponing measures to minimise this damage.

Recommendations developed

The prioritisation process allows recommendations to be developed for the highest priority impacts. The recommendations are proposals for alternative or additional action for the policy to maximise health gain and to mitigate adverse health effects. These recommendations should be practicable and achievable and where possible there should be an evidence-base of effectiveness. It may not be necessary to develop recommendations for all the impacts identified.

The development of recommendations is as important as the identification of the impacts and should be allocated appropriate resources. It should be noted that impacts are not necessarily immediately reversible (Thomson et al, 2002); however removing or reducing exposure to for example hazardous living conditions will have long term benefits.

It may be appropriate to offer different options when making recommendations. An example is given in box 9.

Box 9 Example of alternative options for a recommendation

Reduce the adverse health effects of air pollution generated by road traffic through some of the following options:

- reduce road traffic - introduce traffic-restricted zones,
- reduce emissions from road vehicles - promote hybrid and electric vehicles,
- increase healthier travel modes - walking and cycling,
- develop local air pollutant 'alert' systems.

Process evaluation

The process evaluation aims to identify lessons learnt from the HIA process to help with future HIAs. Ideally an evaluation plan is agreed at the outset of the HIA. An example of an evaluation tool that was applied to the EPHIA methodology based on its use in five pilots is provided in box 10.

Box 10 HIA process evaluation tool

Evaluation criteria - definitions and questions

Effectiveness:

Planned inputs and outputs (as described in the HIA terms of reference) are compared with actual inputs and outputs

- To what extent were the inputs consistent with what was originally planned? If they were inconsistent, then why?
- To what extent were the planned HIA outputs achieved? If they were not fully achieved then why?

Efficiency:

Measure costs (financial, time and human) associated with inputs and outputs

- How much time was spent on HIA and by whom?
- What were the associated financial costs (salaries, travel, expenses etc)?

Equity:

Measures reduction of health inequalities

- Were vulnerable groups or their representatives involved in the HIA?
- Was routine data on vulnerable groups readily available and accessible?
- Did the impacts identify the differential distribution across different population groups?
- Did the recommendations include action to address any differential distribution of impacts?

6.9 Reporting on health impacts and policy options

Once the assessment is complete, impacts have been identified and recommendations for policy revision developed, a first draft report describing the process, findings and policy revision options would be presented to the HIA steering group or HIA commissioner, and to stakeholders and key informants involved in the HIA. At this stage, an experienced assessor should independently appraise a second draft report, ideally one with a background in the policy under investigation. A final draft would then be submitted to the policy decision-makers in order to negotiate amendments to the policy.

This is an important stage of the HIA as it is the mechanism by which recommendations are presented and agreed.

6.10 Monitoring, Impact and Outcome evaluation

Finally, in addition to the process evaluation of EPHIA, the potential outcomes of a completed assessment should also be evaluated and monitored. This includes:

- Impact evaluation - the influence that the assessment had on decision-making
- Outcome evaluation – evaluating whether the HIA was successful in maximising the positive and minimising the negative health impacts of the policy.

Outcome evaluation is sometimes difficult to do because of the complex, multi-causal pathways between health determinants and health outcomes. A direct connection between the actions of a policy and its health consequences is not always possible to find, due to the large number of socio-economic variables impacting on health. However, monitoring programmes can be designed to evaluate the public health outcomes of a policy. These could include health indicators that could test the assumptions and

predictions from the HIA. Health monitoring could be included in an existing monitoring programme for a policy.

Box 11 Questions from an impact evaluation tool: an example

- How was the HIA used in the policy development process?
- How was the policy proposal changed as a result of the HIA?
- Were the recommendations accepted and implemented? If so how and when? If not why?
- What, if any, were the unintended impacts of the HIA? For example, was partnership working improved or did it raise the profile of health in non-health settings?

6.11 Rapid EPHIA

As mentioned earlier, an EPHIA can be performed in a 'rapid' way, enabling the assessor to quickly report on expected health impacts of a proposed policy. The EPHIA methodology provides the basis for these steps. During a rapid HIA some steps in the EPHIA methodology may be carried out in less detail than an in-depth HIA, or may even be omitted.

While one person can perform all tasks, co-operation between a health expert and the policy proponent is a preferred starting point. A rapid EPHIA requires an input of approximately 120 hours by the assessor/s and of 2 hours by the key informants. Since it takes time to contact key informants, and to collect ordered data, the whole exercise may take up to a maximum of 12 weeks.

After **screening** has been used to select a policy for HIA, **scoping** is carried out to plan the HIA. This may include setting up a steering group of easily accessible stakeholders and key informants.

When **conducting the assessment** the first three steps will be carried out in less detail than in an in-depth HIA.

Policy analysis: Read the proposed policy and supporting documents.

The following questions can be used to analyse the policy:

- What is the aim of the policy?
- What are the most important policy measures or interventions proposed?
- Who are the most important stakeholders?
- What are the key challenges or opportunities of the policy's implementation?
- What health effects of the proposed policy may be expected?
- Have the health effects of the proposed policy been considered in the policy planning process?

Profiling: This is limited to easily available data resources such as web-based sources. For example:

EU Statistics - Eurostat: <http://europa.eu.int/comm/eurostat/Public/datashop/print-catalogue/EN?catalogue=Eurostat>

Organisation of Economic Co-operation and Development statistics- OECD Statistics Portal: http://www.oecd.org/statsportal/0,2639,en_2825_293564_1_1_1_1_1,00.html

WHO Statistical Information System (WHOSIS): <http://www3.who.int/whosis/menu.cfm>

National level statistics – United Nations Statistics Division

http://unstats.un.org/unsd/methods/inter-natlinks/sd_natstat.htm

Qualitative and quantitative data collection: The main part of data collection in a rapid EPHIA will be a literature search and analysis focussing particularly on review articles.

Web-based sources include:

PubMed <http://www.ncbi.nlm.nih.gov/PubMed/>

WHO library database WHOLIS <http://www.who.int/library/database/index.en.shtml>

WHO Regional Office for Europe, Health Evidence Network <http://www.euro.who.int/HEN>

Key informants can provide a good way of gaining information about possible health impacts and they may be able to direct you to good sources of information. Key informants are people who represent, or have expert knowledge about, stakeholders and affected groups. Key informant consultation may be done in different ways. An e-mail questionnaire (with, for example, no more than 5 questions) is the most rapid way.

Examples of questions might include:

- What are the likely effects of the policy measures on health and well being?
- What is the likely scale (severity of health impact and size of population affected) of these effects?
- Which population groups are most likely to be affected?
- What are the most important health impacts to address?
- How would you change the policy to address these impacts?

A meeting, or interviews, may provide more in-depth information. Input data should be located from readily available sources such as data sources already accessed during profiling and the literature search. Existing mathematical models may be used in order to illustrate quantitative impact data but no new models will be created.

Impact analysis: Using all the information gathered, analyse the expected health impacts. One way of documenting the results is by using a matrix.

Table 12 Example of a health impact matrix

Policy measure	Determinant	Affected group/s	Health effect	Importance of the effect	Knowledge base
Describe policy or priority, as put down in the policy paper	Identify the health determinant affected	Identify target groups of the policy and other affected groups	Briefly describe health effect and determine whether it is a positive or negative effect	<ul style="list-style-type: none"> ♦ Strength of evidence ♦ Likelihood of impact ♦ Severity and scale of health impacts. ♦ Contribution to reducing/increasing health inequalities ♦ Relevance to existing health priorities and targets 	On what knowledge source is the expectation of the health effect based?

Following **impact analysis** prepare a draft HIA report, presenting the results of each step taken, followed by conclusions and **recommendations**. Prepare policy recommendations or policy options. Important questions are:

- *What* needs to be done to maximise health gain and minimise health loss ?
- *Who* should do it?
- *How* should it be done?
- *When* should it be done by?

Circulate this to key informants and stakeholders, asking for comments.

Then prepare a **final report**.

7 Concluding Remarks

7.1 Benefits of EPHIA methodology

The EPHIA methodology has been produced following a comprehensive and thorough research and piloting process. It has been rigorously tested and evaluated and has been refined to address the requirements of DG SANCO.

The result is a stand-alone, robust, flexible and pragmatic methodology for DG SANCO that will enable policy makers to undertake HIAs. Assessors can pick and choose elements of this methodology to suit their purposes. It can be used to conduct HIAs relatively quickly and includes particular guidance on conducting a rapid HIA exercise where time is limited. It can also be used to conduct more comprehensive HIAs either centrally in DG SANCO or through a range of assessment partners in different Member States.

7.2 Benefits of Project Report

By documenting the process of conducting the HIA pilots of a major European policy and providing detailed descriptions of how the methodology was applied, the project has generated valuable insights into the reality of conducting HIAs and how to address the challenges it presents. Although the EPHIA methodology is intended as a stand-alone document, the full project report also provides:

- a practical demonstration of what the EPHIA methodology can achieve when assessing complex EU policies and an illustration of a quality end product;
- a practical example for EPHIA practitioners in DG SANCO and elsewhere to consult when conducting HIAs in other policy areas in the future;
- valuable insights into the applicability of HIA methodology both generally and in a European context;
- material on methodological insights for use in dissemination to raise awareness and interest in EPHIA.

The project has been actively promoted since its inception by in Member State countries and internationally. Presentations have been given to the annual conference of the International Association of Impact Assessors at The Hague in June 2002 and at the ISEE HIA workshop in Vancouver in August 2002. Workshops were facilitated at the EUPHA conferences in Dresden in November 2002 and in Rome in November 2003 and at the UK and Ireland HIA Conference in Birmingham in October 2002.

7.3 Benefits of completed HIA of European Employment Strategy

The project has also produced a completed HIA of a major EU policy. The reports of the pilot HIAs used to test the methodology provide detailed high quality assessments of the potential health impacts of the European Employment Strategy and will be of interest to European employment policy makers, including DG Employment. Some of the research partners intend to use material from the project to influence employment-related policy making in their Member States.

Bibliography

Acheson D (1998) Independent inquiry into inequalities in health report. The Stationery Office, Norwich.

Black D, Morris J, Smith C, Townsend P (1980) Inequalities in health: report of a Research Working Group. Department of Health & Social Security, London.

Burchell, B. (1995), The effects of labour market position, job insecurity and unemployment on psychological health, Paper presented to the XVIIth International Working Party on Labour Market Segmentation, Sienna

Commission of the European Communities (2001) Communication from the Commission to the European Parliament, The Council, The Economic and Social Committee and the Committee of the Regions: The Commissions' Work Programme for 2002. Office for the Official Publications of the European Union, Luxembourg.

Commission of the European Communities (2002) Communication from the Commission on Impact Assessment – COM 276 final. Office for the Official Publications of the European Union, Luxembourg.

Commission of the European Communities (2002a) A decision of the European Parliament and Council adopting a programme of Community action in the field of public health (2003-2008). Official Journal of European Communities, Luxembourg.

Council of the European Union (2003) Council decision of 22 July 2003 on guidelines for the employment policies of the Member States 2003/578/EC. Office for the Official Publications of the European Union.

Department of Health (1999) Saving lives our healthier nation, TSO, Norwich.

Department of Health and Children (2001) Quality and Fairness: A Health System for You. Government Publications Office, Dublin.

Douglas M, Conway L, Gorman D, Gavin S, Hanlon P (2001) Developing principles for health impact assessment. *Journal of Public Health Medicine*, 23, 2, 148-154.

EC (1999) Now within: EC (2002) Consolidated Version of the Treaty Establishing the European Community. Official Journal of the European Union C 325, 24.

EC (2002) Consolidated Version of the Treaty Establishing the European Community. Official Journal of the European Union C 325, 24.

Fehr R (1999) Environmental HIA: Evaluation of a 10-step model of HIA. *Epidemiology*, 10, 618-625.

Gezond en wel. Kader voor het volksgezondheidsbeleid 1995?1998 [Safe and sound. Framework for the national health policy 1995?1998]. The Hague, Ministry of Health, Welfare and Sports, 1995 (Parliamentary document 24 126, No. 2

Greater London Authority (2001) Health Impact Assessment: A Screening Tool for the GLA. GLA, London.

Hirschfield A, Abrahams D, Barnes R, Hendley J, Scott-Samuel A (2001) *Health Impact Assessment: Measuring the Effect of Public Policy on Variations in Health*. University of Liverpool, Liverpool.

Knodel J (1993) *The design and analysis of focus group studies: a practical approach*. In: Morgans, D (ed) *Successful Focus Groups* pp35-50. Sage, London.

Lalonde M (1974) *A New Perspective on the Health of Canadians*. Minister of Supply and Services Canada, Ottawa.

Lehto J, Ritsatakis A (1999) *Health Impact Assessment as a tool for inter-sectoral health policy: a discussion paper for a seminar at Gothenburg, Sweden*. ECHP, WHO, Brussels.

National Assembly for Wales (1999) *Developing Health impact assessment in Wales*. Health Promotion Division, National Assembly for Wales, Cardiff.

Pennington A, Elliot I, den Broeder L, Haigh F, Mekel O, Abrahams D, Scott-Samuel A, Fehr R, Birley M (2002) *HIA methodology: results from a search strategy*. University of Liverpool, Liverpool. Unpublished.

Roscam Abbing, e. et al. (1995) *Gezondheidseffectscreening. Verkennend rapport en verslag van een workshop [Health impact assessment. Report and proceedings of an expert meeting]*. The Hague, Ministry of Health, Welfare and Sports.

Scott-Samuel A, Birley M, Ardern K (2001) *The Merseyside Guidelines for Health Impact Assessment*. Second Edition, www.ihia.org.uk.

SNAP (2000) *Health Impact Assessment: Piloting the Process in Scotland*, Scottish Needs Assessment Programme.

State Secretary of Welfare, Health and Culture. (1992) *Preventiebeleid voor de volksgezondheid [Prevention policy for public health]*. The Hague, SDU, 1992 (Parliamentary document 22 894, No. 1).

Thomson H, Petticrew M, Morrison D (2002) *Housing Improvement and Health Gain: A systematic review*. Glasgow: MRC Social and Public Health Sciences Unit.

UNECE (2003) *The Kiev (SEA) Protocol*. United Nations Economic Commission for Europe, Geneva.

Welteke, R., Fehr, R. (Hrsg.) (2002) *Workshop Gesundheitsverträglichkeitsprüfung– Health Impact Assessment*. Berlin, 19. und 20. November 2001. Tagungsband. Bielefeld: Landesinstitut für den Öffentlichen Gesundheitsdienst Nordrhein-Westfalen (Arbeitsprogramm: S. 165 – 169).

Whitehead M, Dahlgren G (1991) *What can we do about inequalities in health?* *The Lancet*, 338, 1059-1063.

Will S, Ardern K, Spencely M, Watkins S (1994) *Manchester Airport Second Runway HIA*, Stockport Health Commission, Manchester.

World Health Organisation (1998) *Health 21 – health for all in the 21st century*, World Health Organisation, Geneva.