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## Original Research

# How well do strategic environmental assessments in Scotland consider human health?

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## SUMMARY

**Objectives:** Strategic environmental assessment (SEA) is a systematic approach to identifying, describing, evaluating and reporting on the environmental – and health – effects of policies, plans and strategies. SEAs have potential to improve population health because they assess ‘upstream’ health determinants and recommend measures to improve these. The authors studied the range of health issues considered in SEAs in Scotland, and the evidence used in their assessment.

**Study design:** Documentary review of 62 consecutive SEA reports.

**Methods:** Environmental reports were categorized by sector, and the health-related environmental problems, SEA objectives/criteria, differential impacts, evidence, recommended mitigation and monitoring were identified for each report.

**Results:** Environmental reports identified many health-related issues, and set a wide range of health-related objectives/criteria, but these were inconsistent for SEAs assessing similar plans. Few identified differential impacts or mental health impacts. Mitigation focused on mitigating adverse impacts rather than enhancing positive impacts. It was unclear what health evidence was used to inform the judgements made in scoring the plans against SEA objectives.

**Conclusions:** Many SEAs in Scotland adopt a wide perspective on health, but most fail to identify differential impacts. Health involvement in scoping of health issues and better use of health evidence may enhance their quality.

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## Introduction

Strategic environmental assessments (SEAs) are described as ‘a key component of sustainable development’.<sup>1</sup> SEA is a systematic approach to identifying, describing, evaluating and reporting on the environmental effects of policies, plans and strategies (PPS). SEAs assess high-level PPS, whereas environmental impact assessments (EIAs) assess projects. The purpose of SEAs is ‘to ensure that information on the

significant environmental effects of the relevant policies, plans and strategies is gathered and made available to decision-makers’. Decision makers must produce a statement showing how the SEA has influenced the plan. SEAs should ‘extend opportunities for participation in public policy decision-making and increase transparency’.<sup>1</sup>

The European SEA Directive<sup>2</sup> identifies the environmental issues to be considered in SEAs, one of which is human health (Box 1). Public health professionals have welcomed this,

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**Box 1 Environmental issues to be considered in strategic environmental assessments.**

- Biodiversity, flora, fauna
- Population
- Human health
- Soil
- Water
- Air
- Climatic factors
- Material assets
- Cultural heritage (including architectural and archaeological heritage)
- Landscape
- Inter-relationships between these issues

recognizing that policies and plans in all sectors may impact on health. Integrating consideration of health into SEA can form part of a multisectoral approach to protecting and improving people's health, and increase the transparency of decision-making.<sup>3</sup> SEAs can consider health impacts relating to social as well as biophysical determinants.<sup>4</sup> Incorporating the full range of health impacts could avoid the need for separate health impact assessments (HIAs), and therefore reduce duplication of assessment.<sup>4</sup> Notably, SEAs are a statutory requirement whereas HIAs are not.

The Directive identifies 11 sectors that are required to undertake SEA. Scottish legislation requires all public bodies to perform SEA, but Scottish guidance advocates including a narrower range of health issues. It states 'the definition of health in the context of SEA should... be considered in the context of the other issues outlined in Schedule 3(6) of the Act, thereby focussing on environmentally-related health issues such as significant health effects arising from the quality of air, water or soil'.<sup>1</sup> This is reinforced by the identification of the Scottish Environmental Protection Agency (SEPA) as the health consultation authority for SEA. SEPA's remit covers air, water and soil quality, but not social determinants of health.<sup>5</sup>

### How SEAs are conducted

Scottish legislation requires responsible authorities to submit a screening report, a scoping report, an environmental report (ER) and a postadoption statement to the SEA gateway. The guidance suggests outline contents of ERs<sup>1</sup> (Box 2).

ERs list other PPS relating to the environmental issues, and identify key issues of relevance from each to consider in the SEA. ERs also present baseline data for each of these issues, often a large volume. These are used to define 'relevant aspects of the current state of the environment' and 'environmental problems'. The assessors then identify objectives and/or criteria to assess the plan against. SEA objectives are 'a yardstick against which the environmental effects of the PPS can be assessed'.<sup>1</sup> Typically, ERs contain a matrix of the elements of the plan against the SEA objectives, with symbols showing how each element will impact on each

objective. The reports identify and assess alternatives to the plan being assessed. Mitigation measures are identified and recommendations are made for monitoring following implementation.

The authors studied the range of health issues that are being considered in SEAs in Scotland, and the evidence used to underpin their assessment.

## Methods

This review was based on the ERs. All ERs submitted to the SEA gateway between November 2007 and October 2008 were obtained. A documentary review was performed using a framework that was developed based on elements from the recommended contents of ERs. The following were identified for each ER:

- the health PPS identified in the context section;
- the health-related environmental problems identified;
- the health-related sea objectives/criteria;
- identification of differential impacts;

**Box 2 Environmental reports: recommended contents.**

Non-technical summary

Introduction

- Purpose of this environmental report and key facts about the PPS
- SEA activities to date

Context

- Outline and objectives of the PPS
- Relationship with other PPS and environmental objectives
- Relevant aspects of the current state of the environment
- Environmental problems
- Likely future of the area without the PPS
- SEA objectives

Assessment of environmental effects and measures envisaged for the prevention, reduction and offsetting of significant adverse effects

- Alternatives considered
- Assessment methods
- Assessment of PPS and alternatives
- Measures envisaged for the prevention, reduction and offsetting of any significant adverse effects

Monitoring

Next steps

Appendix A. Links to other PPS and environmental objectives

Appendix B. Full assessment results

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