ODHIN PROJECT FACTSHEET

- WP3 –

Cost-effectiveness evidence – comparative results from Italy, Netherlands and Poland and implications for the wider EU

Key facts

- Screening and Brief Intervention (SBI) programmes at either next GP registration or next GP consultation are highly likely to be cost-effective in all 3 countries (Italy, Poland and Netherlands).
- Policy makers should be mindful of the short-term budgetary impact of different SBI policy options
- The use of AUDIT-C with a threshold of 5 for men and 4 for women is estimated to be the most cost-effective screening tool compared to the full AUDIT or FAST questionnaires across all 3 countries

  SBI programmes are estimated to be more expensive to implement in countries with higher alcohol-related mortality, where more people will be captured by the programme and where alcohol-related illness rates are lower. The health gains from an SBI policy is estimated to be greater in countries where alcohol consumption is greater and where more people are screened.

Background

Whilst alcohol and its associated negative impact on health place a heavy burden on healthcare systems, primary care may provide a key opportunity to reach heavier drinkers, who attend primary care more frequently than their moderate-drinking counterparts (Cherpitel 1991). Programmes of Screening and Brief intervention in primary care have been shown to be effective at reducing alcohol consumption in the target population (Kaner et al. 2007), although evidence on the cost-effectiveness of such programmes is considerably more limited, particularly in the EU (with the notable exception of the UK).

Methodology of work

The Sheffield Alcohol Policy Model (Purshouse et al. 2009), a causal epidemiological policy appraisal tool developed in the UK by the Sheffield Alcohol Research Group at the University of Sheffield, was adapted to Italy, the Netherlands and Poland in collaboration with ODHIN colleagues in each country. The best available data on individual alcohol consumption, levels of alcohol-related harm, GP attendance and registration data, and healthcare costs was identified for each country and incorporated into the final models. These models were used to appraise potential SBI policies in each country. The results were subsequently combined using a meta-modelling framework in order to examine the generalizability of the results to other EU countries. In addition a systematic review of the existing international cost-effectiveness literature was undertaken to further explore the transferability of cost-effectiveness results to other countries.

Results

In Italy programmes of SBI at next GP registration and next consultation are both estimated to be highly cost-effective, with Incremental Cost-Effectiveness Ratios (ICERs) of €545 and €588 per Quality Adjusted Life Year (QALY) gained respectively as compared to the national guidelines threshold of €25000-40000. Screening at next registration is estimated to save 7200 alcohol-attributable deaths and 92000 hospital admissions over 30 years. Screening at next consultation captures a greater proportion of the population and leads to reductions of 12400 deaths and 154000 hospitalisations over 30 years. Although both programmes are close to being cost-neutral in the long-term, there is a substantial initial outlay, particularly for a next consultation programme which is estimated to cost €0.6bn in the first year following implementation. This cost is offset by healthcare cost savings in later years, with the net cost of the programme over 30 years totalling €80m.

Results for the Netherlands are similar, with ICERs of €6340 and €5748 per QALY for screening at next registration and consultation respectively. Both figures compare favourably with the national cost-effectiveness threshold of €20000 per QALY, strongly suggesting either programme would be considered cost-effective. Healthcare benefits are again estimated to be substantial, with 12100 and 39000 fewer hospital admissions from screening at next registration and next consultation respectively. As with Italy, costs are front-loaded, with an initial outlay to cover the cost of screening being largely offset in the longer-term by savings to the healthcare system.

Finally, results for Poland show that both policy options are highly likely to be considered cost-effective, with an ICER of 3696zł/QALY for screening at next registration and 3269zł/QALY for screening at next consultation, compared to a national cost-effectiveness threshold of between 12500-41000zł. Gains in health are estimated to be considerable, with 29900 additional QALYs over 30 years from screening at next registration and 57900 for screening at next consultation. Unlike Italy and the Netherlands, the costs of the programme are spread relatively smoothly over the

period of implementation due to the comparatively lower cost of GPs relative to other healthcare costs

Results from the meta-modelling approach used to generalise from the Italian, Dutch and Polish models, together with the existing model for England (Purshouse et al. 2013), show that the significant variables which increase the overall cost of an SBI programme are the population coverage of a programme, the cost of practitioners' time, and alcohol-related mortality rates whilst significant variables reducing the overall cost of an SBI programme are the volume of alcohol-related illness and alcohol-related hospital costs. The health gain from an SBI programme is significantly positively associated with mean alcohol consumption and population coverage of the programme. Initial exploratory application of the meta-model to available data for all EU member states suggests that a programme of SBI at next GP registration is estimated to be cost-effective in all 28 EU member state countries.

This conclusion is supported by the results of the systematic review (Angus et al. 2014) which finds that almost all studies internationally which have examined the cost-effectiveness of SBI programmes in primary care have concluded that they are likely to be cost-effective.

Conclusions for Policy and Research

The key conclusion from this work package is that SBI programmes in primary care are highly likely to be a cost-effective policy option for tackling alcohol-related harm in Italy, the Netherlands and Poland. There is also some evidence that these results are generalisable to the rest of the EU, suggesting that policy makers in all member states (and beyond) should offer serious consideration to the implementation of SBI policies. Attention should, however, be paid to the potential short-term cost implications of such policies, particularly where a large proportion of the population is expected to be captured by the programme, or where the cost of primary care practitioners are high.

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