Optimizing Delivery of Health Care Interventions (ODHIN)

E-guidance for primary health care commissioners and funders[Ω]

THE ODHIN CONSORTIUM*

December 2014

[Ω] The sister document, e-guidance for primary health care providers can be found at: http://www.odhinproject.eu/resources/documents/odhin-project-documents/cat_view/3-odhin-project-documents/7-odhin-publications/22-odhin-e-guidance.html

*Participant organisations in ODHIN can be seen at: http://www.odhinproject.eu/partners.html

The research leading to these results or outcomes has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 259268 – Optimizing delivery of health care intervention (ODHIN). The views expressed are those of the ODHIN consortium and not necessarily those of the European Commission.

What is the ODHIN project?

Alcohol, a cause for more than 200 diseases and conditions

Identification and brief intervention for hazardous and harmful drinking

What can be done?

- Questions to consider
- Options for action

Further reading

The ODHIN project

The ODHIN project (Optimizing delivery of health care interventions) is a four-year project (2011-2014) involving research institutions from nine European countries co-financed under the 7th Framework Programme of the European Commission.

The general aim of the project is to improve the delivery of health care interventions by understanding how better to translate the results of clinical research into everyday practice. The research focused on the implementation of identification and brief intervention (IBI) programmes for hazardous and harmful alcohol consumption (HHAC) in primary health care (PHC).

The project addressed five questions:

1. What are general practitioners' attitudes and views to delivering screening and brief advice programmes for heavy drinking?
2. What does the published scientific literature tell to us about the best ways to improve the volume of screening and brief advice programmes for heavy drinking delivered in primary health care?
3. Can we increase the volume of screening and brief advice programmes for heavy drinking delivered in primary health care by providing training and support, financial reimbursement and the use of internet-based brief advice programmes for identified heavy drinkers?
4. How cost effective are strategies to encourage primary health care providers to deliver screening and brief advice programmes for heavy drinking?
5. How can we assess screening and brief advice programmes for heavy drinking at the country level?

Visit the project website:

www.odhinproject.eu

The impact of alcohol

Alcohol causes more than 200 diseases and conditions

Most of these diseases and conditions present in primary health care – thus primary health care providers cannot avoid dealing with alcohol in routine clinical practice, Box 1

Box 1

Major disease and injury categories causally impacted by alcohol consumption

Neuropsychiatric conditions: alcohol use disorders are the most important neuropsychiatric conditions caused by alcohol consumption. Epilepsy is another disease causally impacted by alcohol, over and above withdrawal-induced seizures. Alcohol consumption is associated with many other neuropsychiatric conditions, such as depression or anxiety disorders, but the complexity of the pathways of these associations currently prevents their inclusion in the estimates of alcohol-attributable disease burden.

Gastrointestinal diseases: liver cirrhosis and pancreatitis (both acute and chronic) are causally related to alcohol consumption. Higher levels of alcohol consumption create an exponential increase in risk. The impact of alcohol is so important that for both disease categories there are subcategories which are labelled as "alcoholic" or "alcohol-induced" in the ICD.

Cancers: alcohol consumption has been identified as carcinogenic for the following cancer categories cancer of the mouth, nasopharynx, other pharynx and oropharynx, laryngeal cancer, oesophageal cancer, colon and rectum cancer, liver cancer and female breast cancer. In addition, alcohol consumption is likely to cause pancreatic cancer. The higher the consumption, the greater the risk for these cancers, with consumption as low as one drink per day causing significantly increased risk for some cancers, such as female breast cancer.

Intentional injuries: alcohol consumption, especially heavy drinking, has been causally linked to suicide and violence.

Unintentional injuries: almost all categories of unintentional injuries are impacted by alcohol consumption. The effect is strongly linked to the alcohol concentration in the blood and the resulting effects on psychomotor abilities. Higher levels of alcohol consumption create an exponential increase in risk.

Cardiovascular diseases (CVD): the relationship between alcohol consumption and cardiovascular diseases is complex. The beneficial cardioprotective effect of relatively low levels of drinking for ischaemic heart disease and ischaemic stroke disappears with heavy drinking occasions. Moreover, alcohol consumption has detrimental effects on hypertension, atrial fibrillation and haemorrhagic stroke, regardless of the drinking pattern.

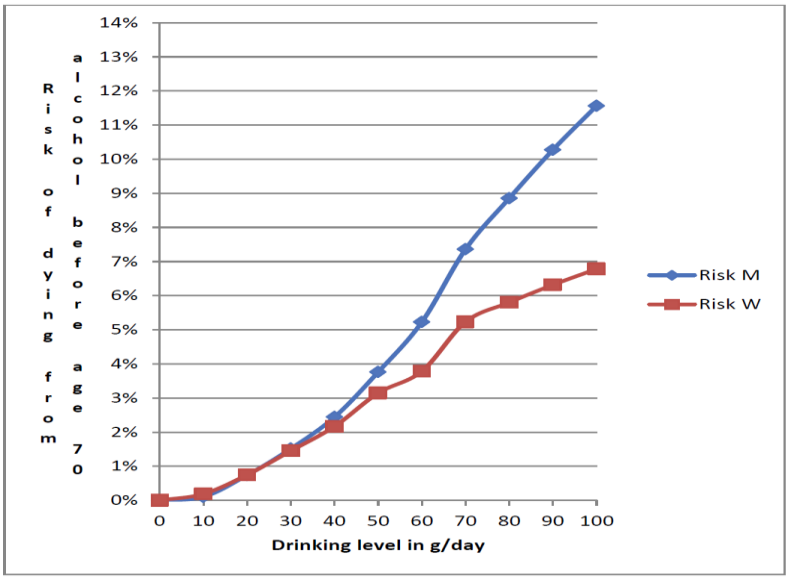
Fetal alcohol syndrome (FAS) and preterm birth complications: alcohol consumption by an expectant mother may cause these conditions that are detrimental to the health of a newborn infant.

Diabetes mellitus: a dual relationship exists, whereby a low-risk pattern of drinking may be beneficial while heavy drinking is detrimental.

Infectious diseases: harmful use of alcohol weakens the immune system thus enabling development of pneumonia and tuberculosis. This effect is markedly more pronounced when associated with heavy drinking, and there may be a threshold effect, meaning that disease symptoms manifest mainly if a person drinks above a certain level of heavy drinking.

At an intake of 20 grams of alcohol a day (similar to two standard drinks), 1 in 100 people will die before the age of 70 years due their alcohol consumption. Beyond 30 grams of alcohol a day, men are more likely to die than women for any given level of alcohol consumption. Reducing alcohol consumption reduces the subsequent risk of an alcohol caused death.

Figure 1 *Risk of dying prematurely (up to age 70) due to alcohol consumption by drinking level in grams of pure alcohol per day Source: (Rehm et al. 2014).*



M = men
W = women

Alcohol increases the risk of dying before the age of 70 years in a more or less dose response relationship

Identification and brief intervention for hazardous and harmful drinking

Brief advice (IBI) from a primary health care provider is effective in reducing heavy drinking

On average, brief advice reduces consumption by 38 grams of alcohol (four drinks) per week over and above control conditions from a pre-advice level of 313 grams (31 drinks) per week - a 12% reduction).

Brief advice is effective in reducing premature death

Brief advice studies to reduce heavy drinking also find reductions in all-cause mortality, with a difference in reduction of 18.3 g of pure alcohol per day between experimental and control groups associated with a 43% reduction in mortality (McQueen et al 2011).

Screening and giving brief advice delivered in primary health care is cost-effective

Screening and giving brief advice is cost effective when delivered both at next consultation and at next patient registration. When delivered at next patient registration, screening and brief advice is, in some jurisdictions, cost-saving.

Despite the health burden and evidence for effectiveness and cost effectiveness, screening and brief advice for heavy drinking is rarely delivered.

The ODHIN study found that in five European jurisdictions (Catalonia, England, Netherlands, Poland and Sweden), only 11 per thousand adult patients who consulted their primary health care doctor were given brief advice for heavy drinking, an estimated 1 in 30 of those who could have benefited from such advice.

Providing training and support to primary health care providers increases screening and brief advice rates.

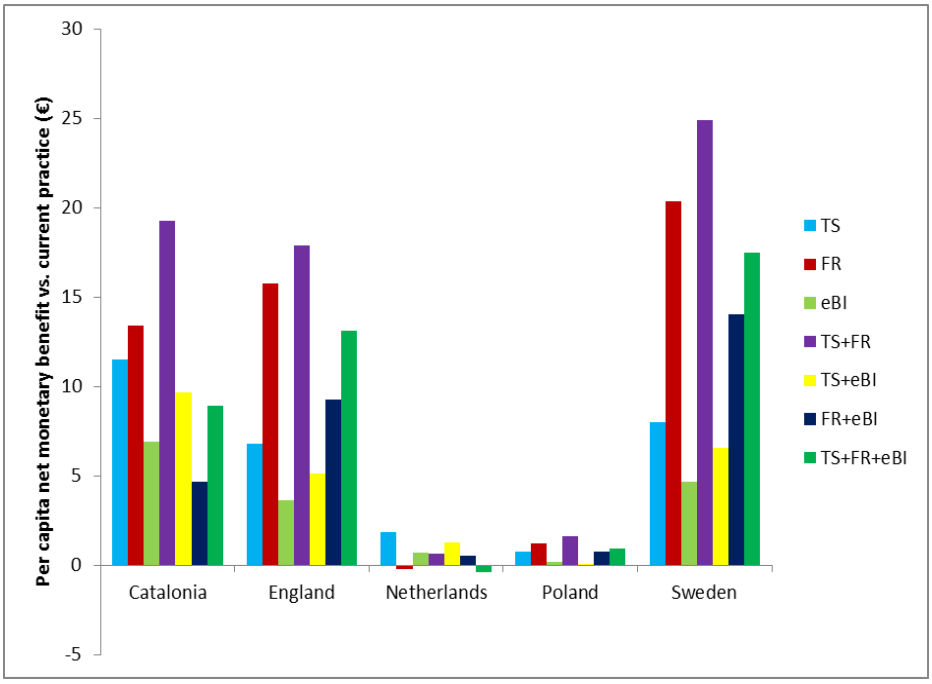
Primary health care physicians who report more education on alcohol report that they manage more patients with heavy drinking. A systematic review of 29 published studies found that education programmes increased the likelihood of delivering screening and brief advice programmes. The ODHIN study found that in five European jurisdictions (Catalonia, England, Netherlands, Poland and Sweden), providers who received between two to four hours of education advised over two-thirds more patients than providers who did not receive training and support during the 12-week period in which the training and support programme was delivered. Six to seven months after the training programme, trained providers were still advising two-fifths more patients than non-trained providers.

Providing financial reimbursement to primary health care providers increases screening and brief advice rates.

There is very little evidence that has evaluated the impact of financial reimbursement programmes on screening and brief advice rates for heavy drinking. The ODHIN study found that providers who received modest financial reimbursement advised more than double the number of patients than providers who did not receive financial reimbursement, an effect that only lasted for the duration of the reimbursement. Combining training and support with financial reimbursement had the best impact - a trebling of the number of patients advised - although the effect did not last, once the financial reimbursement ceased.

Although it can be expensive to deliver a combination of training and support with financial reimbursement, the ODHIN project found that, because more heavy drinkers are advised to reduce their drinking, there are substantial financial benefits, at least for Catalonia, England and Sweden, Figure 2. For example, the implementation of training and support with financial reimbursement is estimated to benefit Sweden by the equivalent of €24.90 for every adult over a 30 period.

Figure 2 *- Net Monetary Benefit per capita of all strategies vs. current practice*



A combination of training and support with financial reimbursement leads to net financial benefits in the long term

Guidance for commissioners and funders of primary health care systems

Governments can support identification and brief advice programmes in primary health care settings by ensuring that clinical guidelines for these interventions are widely available; that providers receive the training, the materials and the advice they need to set up such programmes; and that they are adequately reimbursed for the interventions, either as part of quality improvement initiatives or with fee-for-service payments.

Primary health care providers find it easier to undertake these interventions when they are supported by specialist services to which they can refer difficult-to-manage drinkers. In the management of alcohol use disorders, the transition from primary to specialist care should ideally be seamless.

Questions governments and funders of health care systems can consider:

Are there guidelines for early identification and brief advice programmes? The guidelines should lay the foundation of the scientific evidence for early identification and brief advice programmes, outlining what can be done, when and by whom. They should be issued by appropriate bodies, such as guideline development bodies or institutes of clinical excellence that are responsible in some countries for preparing and disseminating such guidelines. Development should involve appropriate professional organizations to ensure that the guidelines reflect the needs of primary care providers and to ensure their support. The Primary Health Care European Project on Alcohol (PHEPA) has prepared clinical guidelines on identification and brief advice interventions for the European Union, and these guidelines can be adapted for local use (Anderson, Gual & Colom, 2005). National guidelines can also be supplemented with models of the effectiveness and cost–effectiveness of different scenarios for implementing identification and brief advice programmes.

Are there training programmes for primary health care providers on early identification and brief advice interventions? Few primary health care providers are trained to deliver these interventions during their clinical training or postgraduate education. Training programmes for them can be developed based on the clinical guidelines. They should be systematically offered to all primary health care providers. Accredited versions of these courses can be included as part of mandatory continuing education. PHEPA has also prepared a training programme that can be adapted for local use (Gual et al., 2005).

Are there systems for monitoring the quantity and quality of early identification and brief advice programmes, so that their effectiveness can be analysed and improved? It is important to measure the extent and quality of these programmes. Such monitoring can be carried out through a regular audit of case records and implementation of a quality assurance programme. ODHIN has prepared an assessment tool for monitoring the delivery of these interventions (Gandin & Scafato 2013).

Is there any financial support for delivering early identification and brief advice programmes? Such support can be provided by either quality improvement programmes or fee-for-service payments. Financial incentives can play an important motivating role for primary care providers, especially given their relatively poor uptake of these programmes, and the reluctance that some of them exhibit about incorporating preventive interventions into their practices.

Options for action by governments and funders of health care systems:

Preserve the status quo on the assumption that risky drinkers already receive advice from primary health care providers as a matter of course, and that people with alcohol use disorders are currently receiving appropriate treatment, primarily from specialist services. However, all the evidence suggests that this assumption is highly unlikely to be true. And in the absence of surveys or reliable estimates of the provision-to-need ratio, it is impossible to know what the present situation is with any accuracy. Preserving the status quo might be viewed as costing nothing, but that is a false assumption. Investments in early identification and brief advice programmes not only improve health and save lives, but can also save health systems money. Moreover, it can be argued that people who suffer from alcohol use disorders, including harmful use and dependence, have a moral if not a legal right to appropriate treatment.

Set a target of offering early identification and brief advice programmes to 30% of the population at risk for risky drinking. This target could be achieved by putting into place appropriate systems, including provider training, so that every patient who registers with a new primary health care provider, receives a health check, consults a provider about particular disease categories (such as hypertension or tuberculosis) or attends particular types of clinics is offered these interventions.

Set a target of offering early identification and brief advice programmes to 60% of the population at risk. This more ambitious target would require that every patient who receives primary health care services would be offered these interventions, irrespective of the reason for the consultation. It would also necessitate a greater investment in training and supporting primary health care providers.

Stakeholders for action

One key stakeholder is the clinical body or institute for clinical excellence that is responsible for developing clinical guidelines, and which can therefore be asked to prepare guidelines for early identification and brief advice. Another major stakeholding group consists of the professional bodies that represent primary health care providers. Their involvement will help ensure that the guidelines reflect their professional perspectives, as well as secure their endorsement and support for early identification and brief advice programmes. A third stakeholder category covers the public bodies and private organizations that fund and provide primary health care services. This category includes the national health service, local trusts and commissioning services, insurance companies and local communities and municipalities. These stakeholders need to be persuaded of the case for funding and managing early identification and brief advice programmes. To make this case effectively, it may be helpful to model the impact and cost–effectiveness of different scenarios for implementing these programmes.

Further reading

Anderson P, Møller L and Galea G (Eds.) (2012) *Alcohol in the European Union*. Copenhagen, Denmark: World Health Organization, 2012.

The ODHIN TRIAL Consortium (2014) Implementation science: a scientific report describing the methods, results and conclusions of the ODHIN randomized controlled trial. Deliverable 5.2. *The ODHIN Consortium.* 2015 (published online: http://www.odhinproject.eu/resources/documents/doc_download/118-deliverable-5-2-implementation-science.html)

Anderson P, Wojnar M, et al (2014) Managing Alcohol Problems in General Practice in Europe: Results from the European ODHIN Survey of General Practitioners. *Alcohol and Alcoholism* Vol. 49, No. 5, pp. 531–539, 2014

Angus C et al (2014): Cost-effectiveness of a programme of screening and brief interventions for alcohol in primary care in Italy. *BMC Family Practice* 2014 15:26. doi:10.1186/1471-2296-15-26.

Angus C, Li J, Parrott S and Brennan A. (2015) Cost-Effectiveness – Analysis of the WP5 Trial. Addendum to Deliverable D3.1, Work Package 3. *ODHIN Project*. To be published online: http://www.odhinproject.eu/resources/documents/doc_download/119-addendum-to-d3-1-cost-effectiveness-analysis-of-the-wp5-trial.html.

Gandin, C & Scafato, E (2013): ODHIN Assessment tool-report. A description of the available services for the management of hazardous and harmful alcohol consumption. Deliverable D6.1, Work Package 6. *ODHIN Project*. Published online: http://www.odhinproject.eu/resources/documents/doc_download/70-deliverable-6-1-assessment-tool-report.html

Jonas DE, Garbutt JC, Brown JM, Amick HR, Brownley KA, Council CL, et al. (2013) Screening, Behavioral Counseling, and Referral in Primary Care to Reduce Alcohol Misuse. Comparative Effectiveness Review No. 64. Rockville, MD: Agency for Healthcare Research and Quality; July 2012. Accessed at www.ncbi .nlm.nih.gov/books/NBK99199/ on 16 April 2013.

Kaner EF, Dickinson HO, Beyer FR, Campbell F, Schlesinger C, Heather N, Saunders JB, Burnand B, Pienaar ED. (2007) Effectiveness of brief alcohol interventions in primary care populations. *Cochrane Database of Systematic Reviews* 2007, Issue 2. Art. No.: CD004148. DOI: 10.1002/14651858.CD004148.pub3.

Keurhorst, M et al. (2013) Knowledge base of successful implementation of screening and brief intervention for lifestyle issues in every day routine primary health care practice. Deliverable 2.1, Work Package 2. *ODHIN Project*. To be published online: http://www.odhinproject.eu/resources/documents/doc_download/67-deliverable-2-1-literature-review-of-sbi-for-lifestyle-issues.html.

O'Donnell, A., Anderson, P., Newbury-Birch, D., Schulte, B., Schmidt, C., Reimer, J. & Kaner, E. (2014) The Impact of Brief Alcohol Interventions in Primary Healthcare: A Systematic Review of Reviews. *Alcohol and Alcoholism* doi: 10.1093/alcalc/agt170.

Purshouse R, Brennan A, Rafia R, Latimer NR, Archer RJ, Angus CR, Preston LR, Meier PS (2013): Modelling the cost-effectiveness of alcohol screening and brief interventions in primary care in England. *Alcohol Alcohol* 2013, 48:180–188.

Rehm, J., Lachenmeier, DW, Room R. (2014) Acceptable risk? Why does society accept a higher risk for alcohol than for other voluntary or involuntary risks? *BMC Medicine* 2014. http://www.biomedcentral.com/1741-7015/12/189. Accessed 12 November 2014.

Rehm, J., Zatonski, W., Taylor, B. & Anderson, P. (2011) Epidemiology and alcohol policy in Europe. *Addiction* 2011 106 Supplement 11-19.

Rubinsky, A.D., Dawson, D.A., Williams, E.C., Kivlahan, D.R. & Bradley, K.A (2013). AUDIT-C Scores as a Scaled Marker of Mean Daily Drinking, Alcohol Use Disorder Severity, and Probability of Alcohol Dependence in a U.S. General Population Sample of Drinkers. *Alcoholism: Clinical and Experimental Research* 2013 37 1380-1390.

Wojnar, M et al. (2014) Survey of attitudes and managing alcohol problems in general practice in Europe – Final report. Deliverable 4.1- Work Package 4. *Odhin Project.* Published online: http://www.odhinproject.eu/resources/documents/doc_download/52-deliverable-4-1-survey-of-attitudes-and-managing-alcohol-problems-in-general-practice-in-europe.html

World Health Organization (2014). *Global status report on alcohol and health 2014*. Geneva: World Health Organization.

Find out more:

ODHIN project documents