

The policy Delphi method: background, characteristics and steps in the process

WP5 background paper





RARHA

REDUCING ALCOHOL RELATED HARM



Title: The policy Delphi method: background, characteristics and steps in the process

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Summary

The Delphi methodology is designed to provide material for decision making in the face of uncertainty and incomplete knowledge, in particular on complex issues that do not lend themselves to precise analysis. The Delphi process consists in a survey conducted in two or more rounds with a panel of experts. The the panelists are asked to assess the likelihood and/or desirability for certain developments and present arguments to back up their views. The responses are analysed and circulated before the next round where the panelists are encouraged to consider revising their answers and arguments in light of the replies from others or present further arguments to back up their own views.

This paper gives a brief overview of the bakground of the Delphi methodology, of the key characterictics of the Delphi process and of the practical steps for planning and implementing a Delphi study.

The purpose is to inform discussion on ways forward towards a policy Delphi study in the context of Work Package 5 (Good practice principles in the use of drinking guidelines to reduce alcohol related harm) of Joint Action RARHA.

The policy Delphi method: background, characteristics and steps in the process

Background

The Delphi method was developed in the 1950s in Project RAND established by the US Air Force to look into the planning of future weapons. Project RAND was later incorporated as a non-profit institution with the mission to help improve policy and decisionmaking through research and analysis.¹

The name of the method derives from the Oracle of Delphi in ancient Greece, a priestess at the temple of Apollo to whom people turned for predictions of the future. The Delphi method has been widely used for **technology and business forecasting**.

The Delphi method brings together a panel of experts assumed to hold knowledge or informed opinions on topics for which little information is otherwise available. The process also seeks to make tacit knowledge explicit and identify weak signals of change.

The **classic Delphi process** consists in a survey conducted in two or more rounds where the panelists are asked to assess the likelihood and/or desirability for certain developments and present arguments to back up their views. The facilitator/researcher collects and analyses the replies of each round, filtering out irrelevant content. Panelists are provided the results of the previous round and encouraged to consider revising their answers and arguments in light of the replies from others or present further arguments to back up their own views. Ideally, the panelists would converge towards the best arguments and the process would lead to consensus. Agreement between experts is assumed to increase the accuracy of predictions.

While face-to-face discussions were used at start, written or online questionnaires are nowadays common and the Delphi rounds are carried out anonymously. **Anonymity** enhances free expression of opinion or critique, enables to revise statements without “losing face” and minimizes group dynamics such as the effect of status or background on the interaction.

The Delphi process may be stopped after a pre-determined number of rounds, or when no more revisions are made by the panelists, or when consensus is achieved. There is not one single Delphi method but **diverse applications of the methodology**.

When application was extended beyond “simple” forecasting to assessing goals and options the methodology was refined by introducing numeric scales to rate the likelihood, feasibility or desirability of particular developments. The ratings – typically mean or median scores of final rounds – can then be used by researchers to outline different **scenarios**. In the more

¹ http://www.rand.org/international_programs/pardee/pubs/futures_method/delphi.html

sophisticated approaches multi-dimensional scaling and statistical analyses are used. For example, in disaggregative Delphi cluster analysis is used to help construct scenarios.

As a consensus-seeking method the Delphi process has been used also to help develop guidelines and standards in various fields. On the other hand, the classic approach has been criticised for ignoring disagreements and creating artificial consensus while giving an illusion of open discussion. When more complex issues were subjected to discussion and evaluation by Delphi panelists more importance was given to **the arguments used**. Panelists may, for example, be encouraged to comment in particular on the most deviant views or to give arguments for and against each option discussed. The **argument Delphi method** is focussed on ongoing discussion and the most relevant arguments that support various scenarios, rather than the degree of consensus achieved.

In the **policy Delphi method** developed in the 1970s, the aim is not to achieve consensus or construct scenarios but to bring up for consideration a wide range of views on a given policy issue. **The policy Delphi approach brings together experts with divergent views and backgrounds with the aim to table alternative viewpoints or actions and consider their consequences and acceptability while exploring disagreements to capture the reasons behind them.**

The policy Delphi method was initially introduced to improve the effectiveness of classical committee work. Compared with a committee it enables to involve a wider range of experts and to deal with more complex issues. The policy Delphi was initially seen as preparatory work, the results of which would be presented to a proper stakeholder committee for discussion and agreement on policy options.

The use of **web-based techniques** has brought further innovations that speed up the Delphi process and contribute to more descriptive presentation of the results. The separate survey rounds can be replaced by continuous interaction where panelists can change their evaluations at any time. The statistics and graphs illustrating the group's response can be updated in real-time. Participants can, for example, see their own response in relation to those of others in a scatter plot.

Web-based techniques also enable to further develop the methodology towards interactive policy-making or e-democracy for example through the involvement of very large numbers of participants or through the use of several panels representing different stakeholder groups, invited to contribute on topics related to their specific roles and expertise.

The policy Delphi method has been used in a variety of fields, including health policies.

Characteristics

The Delphi methodology is designed to inform decision making in the face of uncertainty and incomplete knowledge, in particular on complex issues that do not lend themselves to precise analysis. The series of Delphi rounds is a judgment process where a panel of experts gives

informed opinions. The policy Delphi method in particular is a process of critical examination of a given policy area.

Characteristics of the policy Delphi Method

- Brings together expert knowledge from a variety of backgrounds
- Anonymous participation to minimize group dynamics
- Structured communication and interaction
- Experts' reasoning becomes explicit
- Opportunity to gain new information from others
- Feedback to enable iterative process
- Potential for some degree of consensus
- Insight into the reasons behind disagreement

Steps in the Delphi process

The basic steps of a Delphi study are outlined below along with questions that could be addressed in the planning stage.

Preparation

- Set up a research group (with sub-groups depending on the breadth of the study)
- Design the organisation of the study including roles and tasks, time schedule, meetings, flow of information.
- Choose the electronic survey tool.

Scope of the study

- What are the main issues under consideration?
- What are the policy options?
- Which points can be excluded because broad consensus already exists?
- Which are the points on which disagreement is the most likely?
- What results can be expected? How many survey rounds are needed?

Selection of panelists

- Which fields are the most relevant? What knowledge and experience is required?
- How large should the panel be? Regarding which dimensions should it be balanced?
- How to identify the experts to be invited? Through self-selection (volunteering)? Nominated — by whom? Appointed — representing an organisation's view?
- How could commitment on the part of the recruited experts be ensured?

Survey

- What statements will be presented, what questions asked?
- How will the questions be formulated? Are background interviews or testing needed?
- What kind of analysis needs to be possible? Agreement/disagreement or numerical scales to reflect strength of agreement?
- How much comments, arguments will be invited? How will they be analysed?

- On what points would it be useful to present open questions to leave room for new ideas?

Questions for the analysis

- How do the arguments compare to one another?
- What evidence or assumptions are presented to back up the positions?
- How does the group react to or evaluate the evidence or assumptions presented?
- Does the analysis give grounds for re-evaluating the premise of the study?

Follow-up

- How will the results be reported? Will feedback be sought from the panel?
- How could the results be used in to develop policy or action?
- How will the results be conveyed to decision-makers?

Planning a policy Delphi study within JA RARHA

The policy Delphi study to be carried out within the Joint Action on Reducing Alcohol Related harm (RARHA) will be planned along the following lines²:

- Background research for the policy Delphi study has been done in the form of overviews of the state of play in low risk drinking guidelines, definitions of Standard Drink, brief intervention practices and the scientific basis for setting risk levels for “acceptable” risk³ (WP5: T1-T5; T7⁴).
- THL is in charge of carrying out the policy Delphi study (WP5: T8-T9), assisted by a planning group: Marjatta Montonen/THL, Pia Mäkelä/THL, Emanuele Scafato/ISS, Claudia Gandin/ISS, Sandra Coughlan/HSE, Sandra Tricas/Eurocare.
- An online tool for Delphi survey (eDelphi 3.0⁵) will be tested and considered for use.
- The Delphi survey will be carried out in two rounds: April-June & August-October 2015.
- A work meeting will be organised in January 2015 to involve as many interested WP5 partners as possible in joint work to develop the Delphi survey: selection of experts for the panel, scope and details of the survey.
- Options for follow-up will be discussed in the work meeting in January 2015, including one of more expert/decision-maker meetings as well as one or more reports and policy briefs.

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² Agreed in the overall JA work plan and in WP5 work meeting, 5 November 2014, Rome.

³ For the concept of “acceptable” risk, see: Rehm J, Lachenmeier, D & Room R. Why does society accept a higher risk for alcohol than for other voluntary or involuntary risks? *BMC Medicine*, 12, 189, 2014; <http://www.biomedcentral.com/1741-7015/12/189>

⁴ Working papers etc available in the restricted area of www.rarha.eu

⁵ <http://www.edelphi.fi/en/>

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