

The PolMark Project

Policies on Marketing food and beverages to children



Final project report

Annex 3: Quantified impact assessment (WP6)

February 2010

<http://www.polmarkproject.net/>

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Project No 2007325

The results discussed in this report represent the individual viewpoints of those interviewed, and thus are not necessarily representative of the official positions of the institutions or organisations for which the interviewees work.

We were able to undertake the PolMark project thanks to the informants and participants interviewed, who gave so generously of their time; to them we offer our wholehearted thanks.

Websites:

<http://www.polmarkproject.net/>
<http://ec.europa.eu/eahc/projects/database.html>

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International Association for the Study of Obesity

28 Portland Place

London W1B 1LY, UK

tel +44 (0) 20 7467 9610

www.iaso.org

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PolMark Partners

Principal Investigator: Tim Lobstein, IASO, 28 Portland Place, London, UK

Belgium The European Consumers' Organisation

Team members: Ruth Veal, Henry Uitslag, Joelle Come, Axel Jansen

Cyprus Research and Education Institute of Child Health

Team members: Savvas Savva, Michael Tornaritis, Monica Shiakou

Czech Republic Masaryk University

Team members: Zuzana Derflerova Brazdova, Jana Fialova

Denmark Suhr's University College / Metropolitan University College

Team members: Aileen Robertson, Irene Norlund, Lene Ljungqvist, Dorthe Elisabeth Jorgensen, Liselotte Hedegaard, Elaine Jessen-Klixbull, Marielouise Maerkedahl, Nina Norgaard Sorensen.

France Institut de Recherche pour le Développement

Team members Michelle Holdsworth, Sophie Tessier, Francis Delpuech

Ireland Irish Heart Foundation

Team members: Maureen Mulvihill, Barbara Battel Kirk, Janis Morrissey

Poland Association of Polish Consumers

Team members: Grażyna Rokicka, Tomasz Odziemczyk, Iwona Olejnik, Dorota Trzmiel, Sławomir Zaborek, Barbara Eichler, Maria Postelk

Slovenia National Institute of Public Health

Team members: Mojca Gabrijeljic, Nina Scagnetti, Matej Gregorič, Vida Turk, Nina Žaler, Špela Jakob.

Spain University of Alicante

Team members: Rocio Ortiz, Carmen Davo, Carlos Alvarez-Dardet

Sweden Stockholm County Council and the Karolinska Institute

Team members: Liselotte Schafer Elinder, Filippa von Haartman

United Kingdom The International Association for the Study of Obesity (Coordinator)

Team members: Tim Lobstein, Andrea Aikenhead, Rachel Jackson Leach, Nina Norgaard Sorensen, Corinna Hawkes, Una Murray

Collaborators

Susanne Logstrup, European Heart Network, Brussels

Marie Kunesova, European Association for the Study of Obesity – Central European Initiative, Institute of Endocrinology, Prague

Observers

Tim Armstrong, Sophie Randby, World Health Organization, Geneva

Trudy Wijnhoven, World Health Organization, Copenhagen

Abstract of project proposal

Technical details

Contract number: 2007 325

Acronym: POLMARK

Starting date: 15 June 2008

Duration of the project: 18 months

Reporting period: 9 months

Total amount of the project: EUR 656,190

EC Co-funding : EUR 390,700

Project extension: EUR 27,000

EC Co-funding: none

Co-funding from other agencies: EUR 23,500

1. General objectives

The general objective of the project is to improve understanding of the influences on children's dietary choices, and to contribute to improving the nutritional status of children in Europe, and counteracting the challenge of obesity and non-communicable disease.

2. Strategic relevance and contribution to the public health programme

The 2006 European Regional Ministerial meeting on the challenge of obesity identified marketing of foods and beverages to children as a public health issue that needed regulation. The European Commission's White Paper 'Strategy on Overweight and Obesity' also recognised this issue and urged industry to take voluntary action, to be reviewed in 2010-2011. The PolMark project is designed to provide specific intelligence resources for policy-makers to assist in these strategic objectives.

3. Methods and means

The project consists of three work packages contributing to the objectives. The first is to update the 'state of the art' review of current controls and regulations on marketing to children in all EU member states, which was last undertaken by the World Health Organization in 2005-6. The second work package will identify over 100 key stakeholders concerned with children's health and with food and beverage production and promotion (at least 10 stakeholders in each of 11 member states) and undertake interviews to assess the stakeholders' views and the likely opportunities and barriers which exist in developing policies in this area. The third work package will utilise the interview material to undertake further assessment of the health impact of food promotion according to the stakeholders' judgements, and to map the quantified health impact data in relation to the stakeholders' positions. This will support the use of health impact assessment techniques as one of the tools available to policy-makers.

4. Expected outcomes

The project's outcomes will advance understanding of current policies and policy options on marketing controls in relation to children's foods and beverages, and extend the methodology available for Health Impact Assessment.

Executive summary

Introduction

The World Health Organization 2002 technical report on chronic disease concluded that ‘heavy marketing of energy dense foods and fast food outlets’ was a ‘probable risk factor’ for obesity.¹ More recently, the European Parliament’s commissioned report on the effect of advertising of food and beverages on children’s health stated that despite a lack of good quality evidence, policy-makers should take action now on the basis of the precautionary principle.²

Obesity is a rapidly growing threat to public health in Europe. In response to the concern about childhood obesity rates, the European Union is considering a range of public health measures to limit its rise. Controlling food and drink marketing to children is one such measure under debate.

Project aims

The aim of the present report is to develop quantified health impact assessment techniques by examining the dimensions of power and assumed interest of the stakeholder’s employing organisation, and whether these dimensions have an influence on stakeholders’ assessments of the impact of an environmental variable on a health-related response. The present report concerns the exposure of children to marketing techniques and the resulting impact on dietary health, as indicated by changes in food choices and changes in dietary intake. It is important to note that the estimates are not in themselves expected to be accurate or significant: their importance lies in their relative value, i.e. the differences in the estimates made by different stakeholders and what these can reveal about the nature of health impact assessments which rely on stakeholders’ quantified estimates.

Methodology

Face-to-face, semi-structured, digitally-recorded interviews were conducted in the period between July 2008 and February 2009 with stakeholders from 8 different categories (see Table 1). Between 13 and 30 stakeholders were interviewed from each category for a total of 169 interviews across 11 EU countries. Stakeholder recruitment was conducted with the aim of reflecting a broad range of relevant viewpoints from senior, national representatives in each sector to provide sufficient coverage of the main issues under debate.

Table 1: Stakeholders Interviewed

Stakeholder category	Number of interviewees
1. Academic experts, government advisors	18
2. Consumer advocates	16
3. Public health and health professional advocates	30
4. Food producers, caterers and retailers	25
5. Advertisers and advertising advocates	18
6. Government officers and regulators	25
7. Children, family and school advocates	24
8. Media representatives	13

¹ World Health Organization (2002) *Diet, Nutrition and Chronic Disease*. Technical Report 916. WHO, Geneva.

² Barnabe D. (2008) *The Effect of Advertising and Marketing Practices on Child Obesity*. European Parliament, Policy Department, Economic and Scientific Policy. IP/A/ENVI/ST/2007-16.

Key findings

Consistent distinctions were found between stakeholders whose organisations were rated as having interests primarily concerned with promoting and defending commercial freedom and marketing activities, in contrast with those stakeholders whose organisations were rated as primarily interested in promoting and defending the perceived health and wellbeing of children.

The quantified estimates of the size of the effect on dietary behaviour following exposure to a range of marketing methods were consistently lower among stakeholders from market-oriented organisations than from child-oriented organisations.

This may reflect the arguments between different interest groups on whether advertising has the effect of raising total market sales, or is directed at raising only the share of sales for the advertised brand. The latter view is often put forward by the advertising industry, though less often by the food companies, where there is some belief that advertising ‘grows the market’ for all companies while also assisting in increasing market share for the advertised company.

In the second case, relating to the dimension defined as ‘power’ and based on indicators such as organisation size and turnover and press department size and budget, there was also a body of evidence suggesting a relationship between the power of an organisation and the responses given by stakeholders working in those organisations.

Higher levels of organisational power were associated with a higher likelihood that the stakeholder would give a low estimate of the impact of marketing on children’s choices or on children’s consumption of the types of foods being promoted. Conversely, lower levels of organisational power were associated with a higher likelihood that the stakeholder would give high estimates of the impact on children’s choices and consumption.

The power of an organisation is inversely related to their rating of the current level of control on marketing to children. Those organisations with higher power and influence may be more likely to use their position to resist stronger controls, while organisations with low levels of power are likely to support stronger controls.

The dimensions of power and interest are not identical and may not overlap significantly: there is some evidence that the scores for power vary widely within each stakeholder interest group. This implies that even within an interest group, the more powerful organisations may resist increased controls on marketing to children than less powerful organisations.

Conclusions

When using HIA to quantify impacts of various practices, programmes or policies it is preferable to have exposure and impact estimates based on experimental or observational research. If these are lacking, which they often are in the area of determinants of nutritional health, researchers and policy-makers often rely on stakeholder views and estimates. In this report we have shown that stakeholder views are prone to bias depending on the stakeholder’s employing organisation’s interest and policy-influencing power.

Stakeholders from high-power organisations with a high degree of influence on policy making, and organisations with commercial interests, were more moderate in their estimation of effects of various marketing techniques directed at children on purchase and consumption of energy dense

foods and sweetened beverages compared to stakeholders from lower-power organisations and organisations with health and consumer-focused interests.

Power was also related to opinion on marketing regulation, i.e. stakeholders from organisations with higher power advocated less control, whereas stakeholders from organisations with lower power advocated more regulation of marketing to children.

The present study provides evidence to support the argument that more powerful organisations and particular interest groups are likely to make lower estimates of the effects of potential risk, and to resist controls on marketing. By definition, less powerful organisations do not have the institutional resources to influence policy-makers which more powerful organisations can command, and as a result there is a potential imbalance in the democratic process.

The Use of Quantified Health Impact Assessment Techniques

Introduction

The PolMark (POLicies on MARKeting of foods and beverages to children) project aims to improve the understanding of influences on children's dietary choices and contribute to improving the nutritional status of children in Europe in order to counteract the challenge of obesity and non-communicable disease.

The 2006 World Health Organization's European Regional Ministerial conference *Counteracting Obesity* identified the marketing of foods and beverages to children as a public health issue requiring regulation.³ The European Commission's 2007 White Paper *Strategy on Overweight and Obesity* also recognised this issue and urged industry to take voluntary action; this position is set to be reviewed in 2010/2011.⁴ The PolMark project is designed to provide resources to assist policy-makers in these strategic objectives.

The project consists of three work packages contributing to the objectives.

- An updated 'state of the art' review of current controls and regulations on marketing to children in all EU member states (last undertaken by the WHO in 2005-6).
- Interviews during 2008 and 2009 with 169 key stakeholders concerned with children's health and with food and beverage production and promotion (up to 20 stakeholders in each of 11 member states) to assess the stakeholders' views and the likely opportunities and barriers that exist in developing policies in this area.
- Development of health impact assessment (HIA) techniques using quantified impact estimates, and their assessment as a tool available to policy-makers.

The present report describes the last item: the use of health impact assessments as a tool for policy-making. In the present study we have used *exposure to marketing messages* as a proxy for exposure to health risk, and assessment of *impact on food choices and food consumption behaviour* as a proxy for impact on health.

The PolMark project provided an opportunity to interview over 160 leading participants in the debate on marketing of foods and beverages to children. Included in the interview protocol were a number of questions aimed at eliciting an assessment of the impact of marketing and marketing controls on children's dietary patterns.

One particular shortcoming in the use of Health Impact Assessment (HIA) techniques for the analysis of policies relating to non-communicable disease is the lack of available quantified estimates of exposure to risk under different scenarios, or an estimate of quantified effects of such exposure on health outcomes or on behavioural outcomes that influence health. A comprehensive HIA requires quantified exposure and effect assessments. When objective data are unavailable, HIA practitioners have also relied on, for example, assessments based on the opinions of a panel

³ WHO (2006). *European Charter on counteracting obesity*. EUR/06/5062700/8 Adopted at the WHO European Ministerial Conference on Counteracting Obesity, Istanbul, Turkey, 15–17 November 2006. WHO Regional Office for Europe, Copenhagen. See <http://www.euro.who.int/document/e89567.pdf>

⁴ European Commission (2007) White Paper *A Strategy for Europe on Nutrition, Overweight and Obesity related health issues*. See http://ec.europa.eu/health/ph_determinants/life_style/nutrition/documents/nutrition_wp_en.pdf.

of experts, often self-selected from an arbitrary wider group, using methods such as the Delphi process. The present study aims to improve this situation by obtaining quantified impact estimates from a wide range of stakeholders and comparing the variation in the estimates according to stakeholder position, thereby strengthening the reliability and validity of the estimates and putting them into context.

The PolMark project interviews asked stakeholders for estimates of the likely effects of exposing children to marketing on the quantities of the food they purchased (or requested their parents to purchase) and the quantities they might actually consume. It is important to note that, given the lack of definitive evidence, *stakeholders were not expected to make accurate responses*; however the purpose of the questions was to elicit *relative responses: that is, the responses would be treated primarily in relation to responses given by other participants*.

Subsequent analysis can set these relative results in the context of the stakeholders' positions regarding policy options obtained in fulfilment of the project's second objective (above). The results will help to refine and improve the usefulness of quantitative exposure and impact estimates obtained through stakeholder consultation methods such as the Delphi process.

Quantified estimates: problems of bias

HIA tries to balance qualitative and quantitative evidence. It recognizes the importance of qualitative information (opinions and analyses) but also seeks to reach some quantitative assessments of exposure and health impact where these are possible.⁵ It has been noted that quantification of exposures and outcomes is comparatively rare in HIA for the effects of food policies on non-communicable diseases, although they have been attempted in areas such as environmental health, traffic accidents and infectious diseases.⁶ In the latter cases, the methods used are diverse and their reliability and validity are uncertain.

Few quantitative estimates have been published on the impact of food and beverage advertising on children's dietary choices, their health or BMI. In 1983, Bolton estimated that children would consume one extra snack for every 25 minutes of TV commercials for food products, and this would increase their overall food intake by about 30kcal while reducing the nutritional quality of their diets.⁷ On the basis of a regression of TV advertising frequency against prevailing child overweight, Lobstein and Dobb (2005)⁸ estimated that the prevalence of overweight among children in a national population increased by nearly five percentage points for every additional five TV advertisements for sweet or fatty foods, shown per hour of routine commercial children's TV programming. A paper by Chou et al (2008)⁹ using econometric regressions on 1979 and 1997 US survey data estimated controls on local TV fast food advertising would reduce the proportion of overweight children by 18%, and reduce the proportion of overweight adolescents by 14%. Lastly, in their estimation of the cost-effectiveness of different forms of intervention to

⁵ Barnes R, Scott-Samuel A. (1999) The Acheson report: beyond parenthood and apple pie. *J Epidemiol Community Health*, 53:322-3

⁶ Veerman JL, Barendregt JJ, Mackenbach JP. (2005) Quantitative health impact assessment: current practice and future directions. *J Epidemiol Community Health*, 59, 361-70.

⁷ Bolton RN. (1983) Modeling the impact of television food advertising on children's diets. In Leigh JH, Martin Jr CR (eds), *Current Issues and Research in Advertising*. Ann Arbor, MI: Division of Research, Graduate School of Business Administration, University of Michigan. pp173-199.

⁸ Lobstein T, Dobb S. (2005) Evidence of a possible link between obesogenic food advertising and child overweight. *Obes Rev*. 6, 203-8.

⁹ Chou S-Y, Rashad I, Grossman M. Fast-food restaurant advertising on television and its influence on child obesity. *Journal of Law and Economics* 2008;51:599-618.

prevent obesity, Magnus et al (2006) estimated that eliminating children's exposure to TV advertisements for energy-dense foods during morning and early evening programming would lead to a reduction of 3% of total energy intake, leading to an average weight loss of around 0.5kg bodyweight per child.¹⁰

In the absence of further evidence, researchers have sought estimates of health impact through expert opinion. One approach to making estimates for exposure and impact is to use a Delphi or iterative approach to the question, using a panel of experts. This tends to be a self-selecting process in which those with strongly held views are most likely to persist and their views may dominate the final model. In an evaluation of the impact of TV advertising controls, Veerman (2009) obtained a quantified exposure estimate of the impact of advertising of foods on children from an invited expert panel who reached their judgements using an iterative Delphi approach.¹¹ In this study, the Delphi process resulted in an estimate that reducing TV advertising to zero would bring down the prevalence of obesity among US children by about six percentage points, from 16.8% of children to 10.5%.

However, it is feasible that the experts who make quantified assessments are unable to be free of potential bias. An individual's expertise is based on experience and exposure to arguments and information, and this can depend in turn on the career paths, colleagues and associates of the individuals involved. The PolMark project took the opportunity to obtain quantified impact assessments in the stakeholder interviews. . This has the principle advantage of being able to set the estimates made by stakeholders in a context, i.e. to allow the mapping of the relationship between the estimates obtained and the stakeholder's positions in regard to the various options on regulating marketing.

The results can then be used to show the effect, if any, of the different positions held by stakeholders, and thereby provide a better means of judging the possible bias inherent in using expert panels. By selecting stakeholders from across a spectrum of countries, institutions and interests, analysis of their quantified health impact assessment should be able to provide a more robust means of estimating potential bias in expert opinion than is available in self-selected expert panels, and improve the use of Health Impact Assessment techniques in this field, and potentially others where objectively measured data are unavailable.

The authors of this report are aware of only one piece of evidence which suggests that the power of a stakeholder (or their organisation) might be linked to their position with regard to protecting children's health from the potential influence of promotional marketing of food and beverages. In an analysis by Knai (2008)¹² of stakeholder views on the introduction of marketing controls on soft drinks, conducted in Denmark and Latvia, the interviewees' organisations were ranked by the researchers according to the perceived ability of the organisation to have their views reflected in public policy and action. The results (shown in Figure 1, below) suggested an inverse relationship between support for controls and ability to influence the agenda: the stakeholders most supportive of increasing regulatory control over marketing tended to be rated as the least influential.

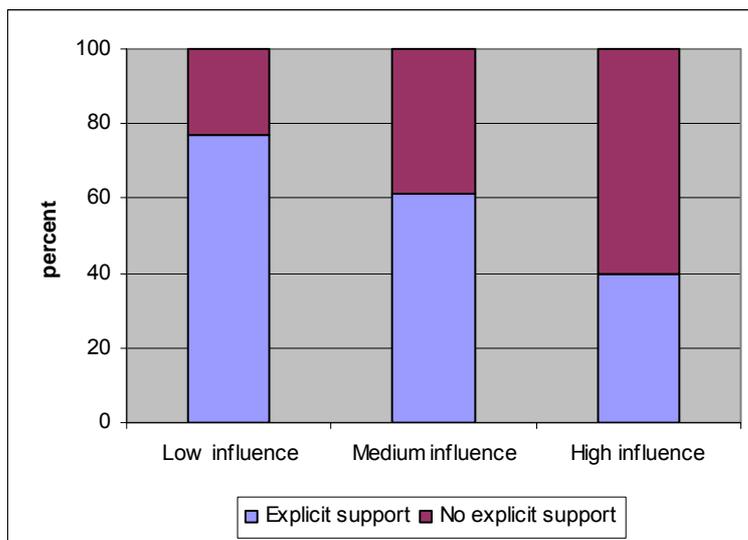
¹⁰ Magnus A, Haby MM, Carter R, Swinburn B. (2009) The cost-effectiveness of removing television advertising of high-fat and/or high-sugar food and beverages to Australian children. *Int J Obes* 33:1094-1102.

¹¹ Veerman JL, Van Beeck EF, Barendregt JJ, Mackenbach JP. (2009) By how much would limiting TV food advertising reduce childhood obesity? *Eur J Public Health*. 19, 365-9.

¹² Knai C. Soft drink advertising to children: an analysis of stakeholder views in Denmark and Latvia. Ph D thesis. London School of Hygiene and Tropical Medicine, 2008.

Fig 1: Marketing of soft drinks: an inverse relationship between level of support for stronger controls and level of influence on the policy agenda

Source: Knai C. (2008)¹²



This raises the possibility that the dimension of ‘power’ or ‘influence’ with respect to the policy-making process may affect the positions taken by stakeholders. This relationship is recognised in stakeholder analyses for policy-making in other fields. For example, guidance to researchers undertaking stakeholder analyses on overseas development projects given by the UK Overseas Development Administration (ODA) provides instructions on the assessment of the interests of stakeholders and their influence or importance in helping (or hindering) a project’s successful implementation.¹³ According to these guidelines, power and influence are indicated by legal hierarchies, budgetary hierarchies, political authority, control of resources, possession of specialist knowledge, and other such measures. In the policy-making process in Europe, additional potential indicators of influence include the ability to influence opinion through, for example, lobbying and media activities.

The ODA Guidelines note that the ability to influence policy should not be confused with the importance of a project to a stakeholder. The ‘importance’ dimension includes factors such as the degree to which a project would affect livelihood and income, economic prospects and expectations, living conditions, local environments and, of course, health. In the context of overseas development projects, people with high interest but low influence might include women, children and family and community organisations, in contrast to people with a variety of interests combined with high influence such as politicians, land owners and religious organisations.

Stakeholder analysis with respect to the power or influence of a stakeholder’s organisation is considered in health sector reform. In the World Bank’s *Stakeholder Analysis Guidelines* (Schmeer 2000)¹⁴, a Power Index is suggested in which stakeholders are given scores on two factors: the resources available to the stakeholder and the ability to mobilise those resources. A second dimension is also identified, titled ‘leadership’ and analyses are proposed which categorise stakeholders as (i) having leadership and high power (e.g. government ministries), (ii) having leadership and medium power (e.g. local politicians, donor agencies) and (iii) no leadership but

¹³ Overseas development Administration. Guidance Note on how to do stakeholder analysis of aid projects and programmes. Social development Department, 1995 (see www.euforic.org/gb/stake1.htm)

¹⁴ Schmeer K. (2000) Stakeholder Analysis Guidelines. Section 2 in Policy Toolkit for Strengthening Health Sector Reform (eds Scribner S and Brinkerhoff D) The World Bank. See <http://info.worldbank.org/etools/docs/library/48545/RD1.PDF.pdf>

medium or high power (e.g. provincial health officers).

In the present project, these concepts were investigated using a number of indicator questions, focussing on the size of a stakeholders' organisation (in terms of annual turnover and numbers of head office employees) and on the capacity of the stakeholder's organisation to influence the policy agenda through the media (annual budget of the media department, number of media staff, annual budget for advocacy and lobbying).

The two hypotheses considered are:

(i) that stakeholders coming from organisations with different interests demonstrate differences in their quantified impact estimates (with the null hypothesis that there are no differences in the estimates of impact between stakeholders coming from organisations with different interests);

(ii) that stakeholders coming from organisations with different levels of power demonstrate differences in their quantified impact estimates (with the null hypothesis that there are no differences in the estimates of impact between stakeholders coming from organisations with different levels of power).

Methods

The partners in the PolMark project constructed a protocol for quantified impact estimates to be included in the stakeholder interviews. The protocol contained questions on the exposure of children to advertising and the relative impacts on children's choices and on their subsequent dietary behaviour, assessed under various proposed scenarios. The collected data is in a form allowing quantified or ranked impact assessments.

All partners collected the responses during the interviews conducted in 11 EU member states (Belgium, Cyprus, the Czech Republic, Denmark, France, Ireland, Poland, Slovenia, Spain, Sweden and the UK) between mid-2008 and early 2009. Details of the stakeholders and interviews are given elsewhere (Annex 2 of the PolMark Final Report). Efforts were made to ensure that the interrogations conducted with stakeholders were similar across all member states. For all stakeholders, the questions were posed at the same point during the interview, were expressed in similar words (allowing for translation) and were given a similar context, in which the estimate by Bolton (see above) was given as a reference point. Thus the relevant section of the interview was introduced by the following statement:

These advertising methods might increase overall consumption of foods. One estimate in the research literature suggests that about 25 minutes of TV advertising per week increases the intake of snacks by about one snack per week. What is your view on this estimate?

Thank you. That estimate was made in the early 1980s, before the obesity epidemic really got started. More recently, a panel of experts consulted in a Dutch study suggested the figure should be higher. Now I wonder if you would give your opinion on whether advertising in different settings may lead to an increase in snacking or soft drink consumption in terms of portions of a soft drink or a bag of potato snacks on a daily or a weekly basis. We could take a hypothetical child, say aged 12 years, and we can score their consumption in terms of the number of extra items consumed per day or per week, e.g. ½, 1, 1½ etc.

I accept that you will be speculating, but it helps to know what you would guess.

At this point the interviewer produced a series of cards containing statements which led the participants to make estimates of impact of various forms of marketing in various contexts.

Ranking by interests

Stakeholder interests were categorised according to the organisation where the stakeholder worked. In the first instance these were divided into eight categories, defined as:

1. Academic institution
2. Consumer advocacy organisation
3. Public health advocacy organisation
4. Child / school / family advocacy organisation
5. Food industry organisation
6. Advertising industry organisation
7. Media organisation
8. Government department or legislature

For further analyses, these were clustered into three groups considered to have *a priori* different levels of interest:

1. Primarily interested in promoting and defending commercial freedom and marketing activities, while child health protection is a lower priority (6. Advertisers, 5. Food industries)
2. Ostensibly neutral (7. Media, 8. Government, 1. Academic)
3. Primarily interested in promoting and defending the perceived health and wellbeing of children and parents, while the defence of commercial freedoms is a lower priority (2. Consumer, 3. Public health, 4. Child/school/family)

Ranking by power

Stakeholder power dimensions were inferred from their responses to certain questions about their organisations. The questions asked from which estimates of power were inferred were:

1. The annual turnover of a stakeholder's organisation
2. The numbers of head office employees of a stakeholder's organisation
3. The annual budget of the media or press department of a stakeholder's organisation
4. The number of staff in the media or press department of a stakeholder's organisation
5. The budget of a stakeholder's organisation for lobbying and advocacy work

A *composite power score* was constructed for a stakeholder organisation by dividing the responses to each question into three levels and giving a score to each level (lowest third of scores =1, middle third of scores =2 or highest third of scores =3). For each stakeholder organisation these scores were averaged and the resulting number – the power score – was used to partition all organisations into one of three categories: low power, medium power, or high power.

Results

The division of stakeholders into interest groups has been undertaken in the present report and also in the report of Work package 5 of the PolMark study. In Work package 5 the results of the views and opinions of stakeholders are described in detail. In the present report the analyses are limited to those concerning the effects of different advertising exposures on children's choices and on their estimated consumption. The present report will also consider the possible link between stakeholder interest and stakeholder power and the association between interest, power, and whether the stakeholder is in favour of more stringent regulation to control marketing directed towards children.

Quantified Impact analysed by different interest categories

(a) Interest group and impact of marketing on children's food choices

Stakeholders were asked to give an estimate of the relative effectiveness of different types of media marketing methods in terms of the likely impact on children (around 10-12 years old) increasing their purchases or pestering their parents to make a purchase. Scores were rated from 0 (no impact) through 5 (moderate impact) to 10 (very high impact). On average, interviewees thought each marketing method mentioned exerts a moderate to high impact on purchase or pester behaviour, as shown in Figure 2, which presents the mean, median, minimum and maximum impact scores. All interviewees who gave a response (152 of a total of 169 interviewees) felt that TV ads and products at supermarket checkouts have significant effects on purchasing or pestering - these two methods also received the highest mean, median and maximum scores. Over half of those responding felt the impact of all marketing methods was more than 'moderate' (5 out of 10). Product placement in movies was deemed to be the least effective method, with 28% scoring its impact as less than moderate. TV advertisements were seen by most as the method with most impact on purchasing or pestering; 77% of respondents gave it a score exceeding 'moderate'.

Fig 2. Perceived impact of marketing on purchasing or pestering, by marketing method

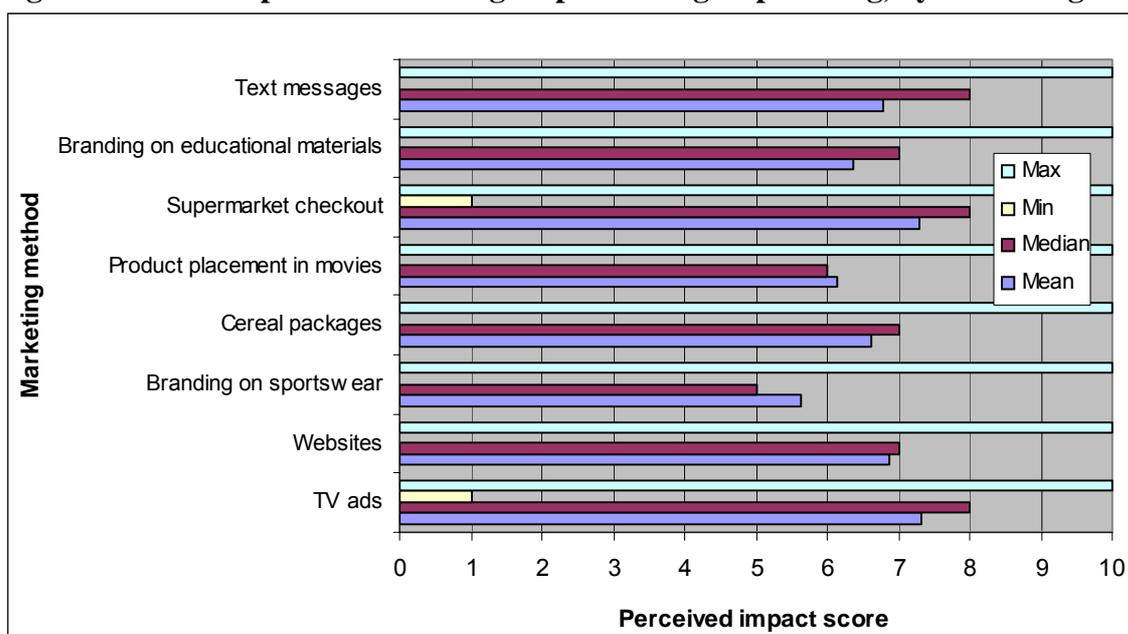
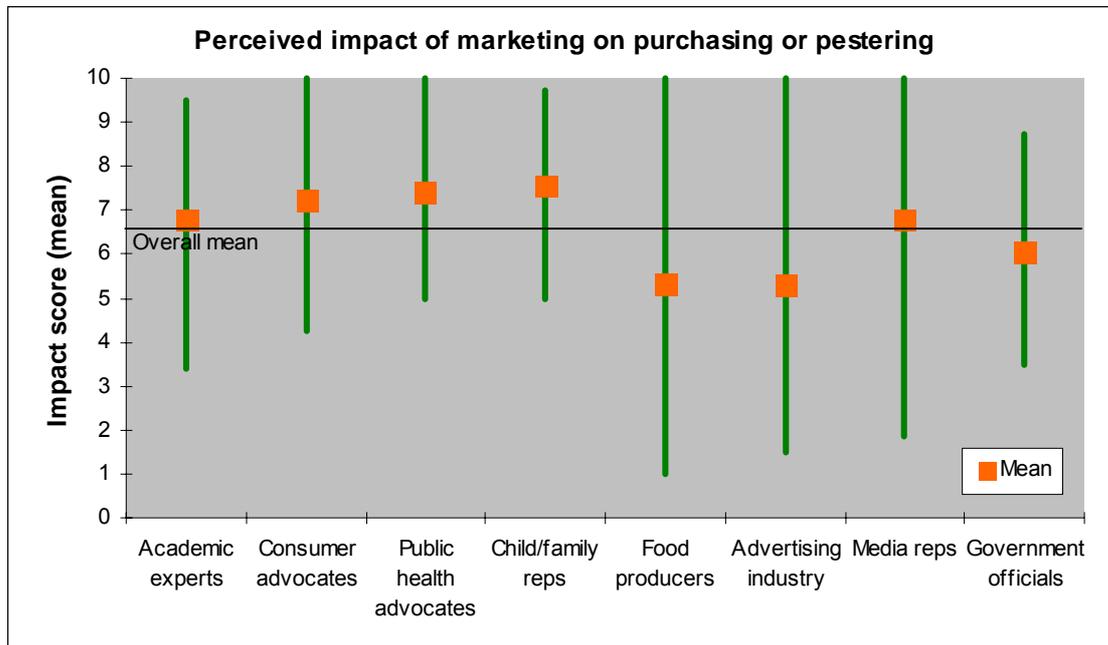


Figure 3 presents the mean and range of impact scores given by each stakeholder category. On

average, all stakeholder groups perceived the impact to be above ‘moderate’ (5/10), with food producers and advertisers on the low end of the scale.

Fig 3: Perceived impact of marketing on purchasing or pestering by stakeholder group



It should be noted that the estimated impact is expressed as a score on a relative scale: interviewees repeatedly disclaimed having sufficient knowledge of the likely actual impact. The purpose of asking these questions was to obtain assessments which could be compared against the assessments given by other stakeholders. The quantified assessment scores *in relation to the scores given by others* are the points of interest, in order to ask whether there are consistent patterns which reflect known characteristics of the stakeholders or their institutions, or between different forms of marketing or target population.

In the comparisons below, eight forms of marketing to children were compared, and stakeholders were asked to rate each one in terms of “relative effectiveness of different types of media in terms of the likely impact on children (say 10-12 years old) regarding their own purchases or pestering their parents to make a purchase”. Stakeholders gave scores from zero (no impact) to 10 (very high impact).

Seventeen interviewees were reluctant to estimate the impact of any marketing method; they were from the advertising industry (5), food producers (4), academics (2), child and family groups (2), government officials (2), consumer advocates (1) and media organisations (1). Reasons put forward by those who refused to quantify the impact included: the lack of available evidence, the need to tackle the problem at the root and reassess the food on offer rather than the promotion, and the fact that the impact of advertising is very dependent on its content, which varies substantially. Also, the opinion was expressed that due to cultural differences in advertising techniques between countries, the impact of some ads would depend on the nationality of the target population.

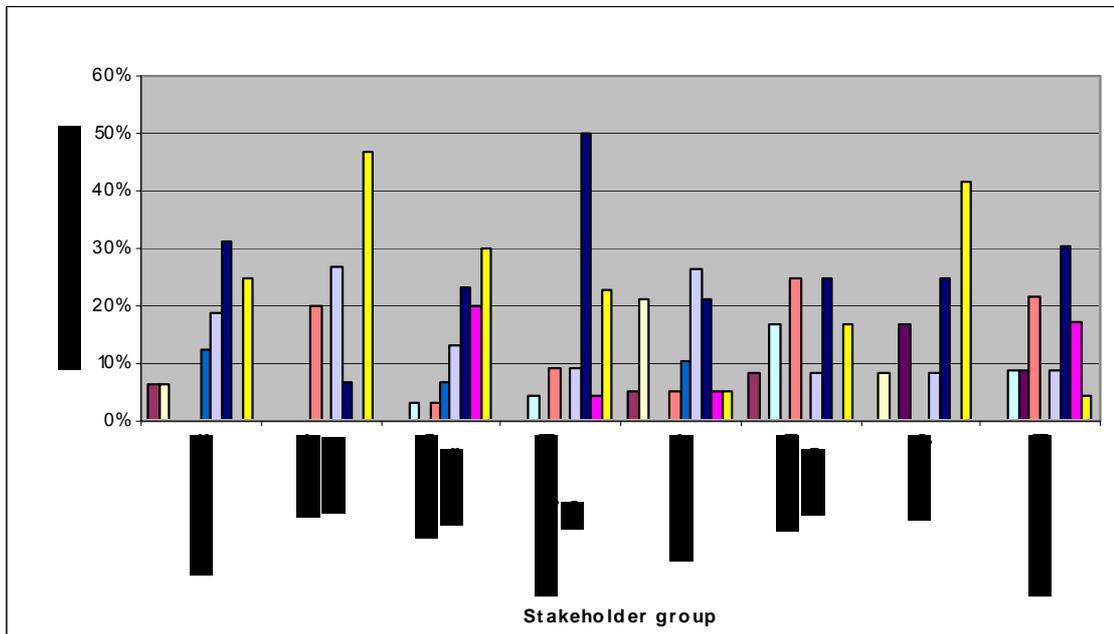
Results for all remaining stakeholders combined are shown below. On average, TV advertisements, point of sale promotion and text messaging were rated as having a higher impact than sportswear branding or product placement in movies, with other forms of advertising having intermediate scores.

Comparing responses from the different stakeholder groups, average scores from representatives of the food production and advertising sectors were lower than those from other stakeholder groups, although the range of scores was larger.

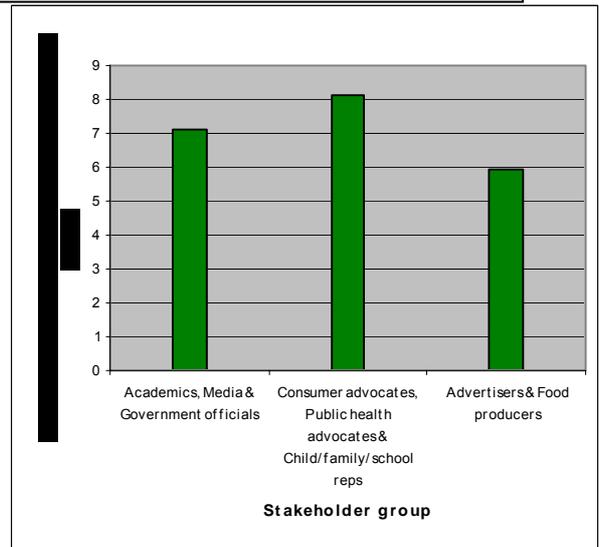
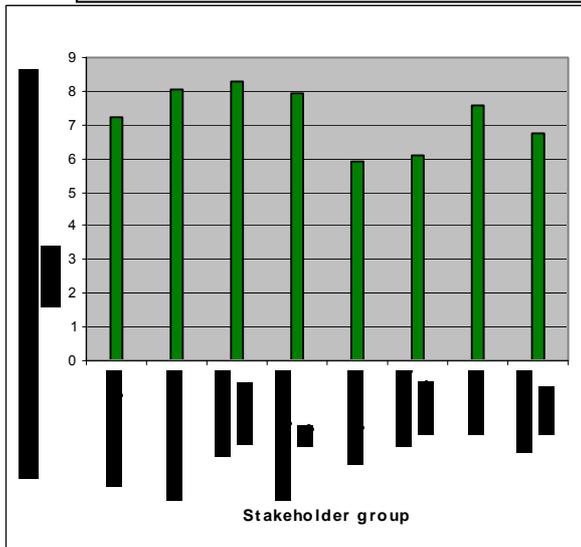
More details on the differences between forms of promotional marketing and the scores given by different stakeholders are shown in the set of graphs following (Figures 4-11). These show the estimates for each of eight different promotional marketing approaches.

Note that there is a wide variation in response within each stakeholder category: for instance some representatives from the food industry gave scores of zero and others estimated that the marketing method elicited an increase in purchasing or pestering of seven or more portions per week, i.e. more than one portion per day.

Fig 4 a, b, c: Do TV ads for fast food stores shown 2 x daily for a week impact children's purchasing or pestering of their parents to purchase?
 Proportion (%) of stakeholders in agreement



Legend: 0 - no impact 1 2 3 4 5 6 7 8 9 10 - very high impact



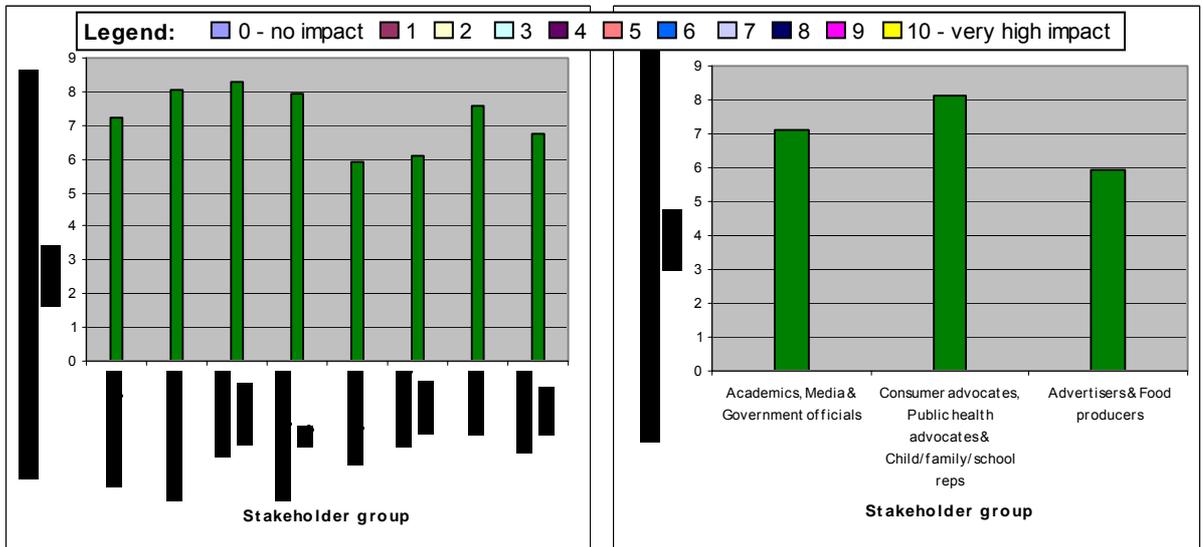
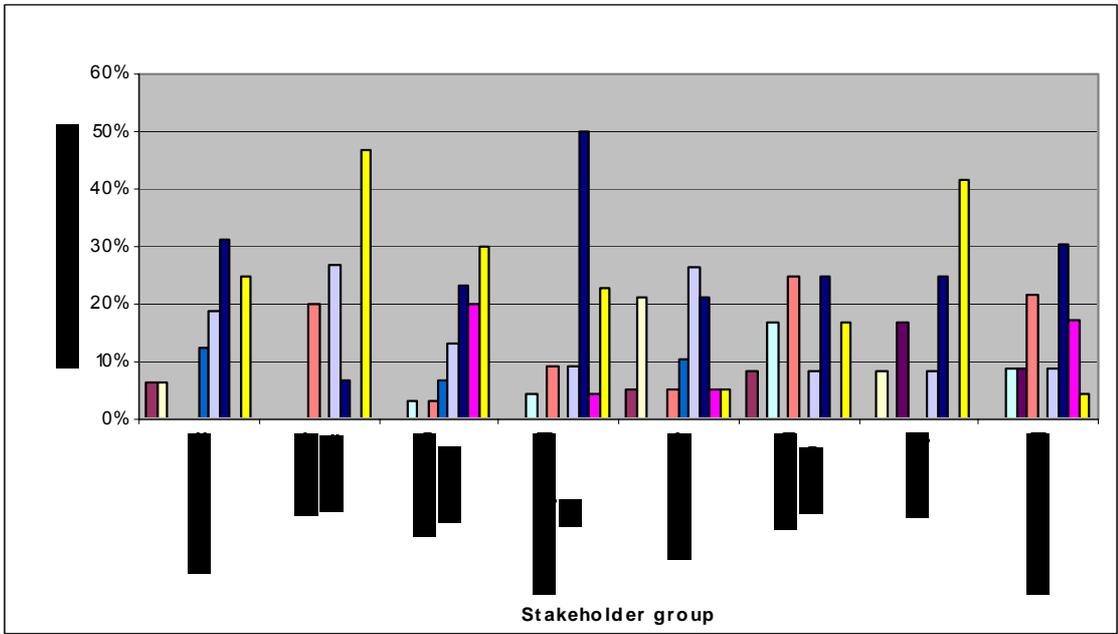
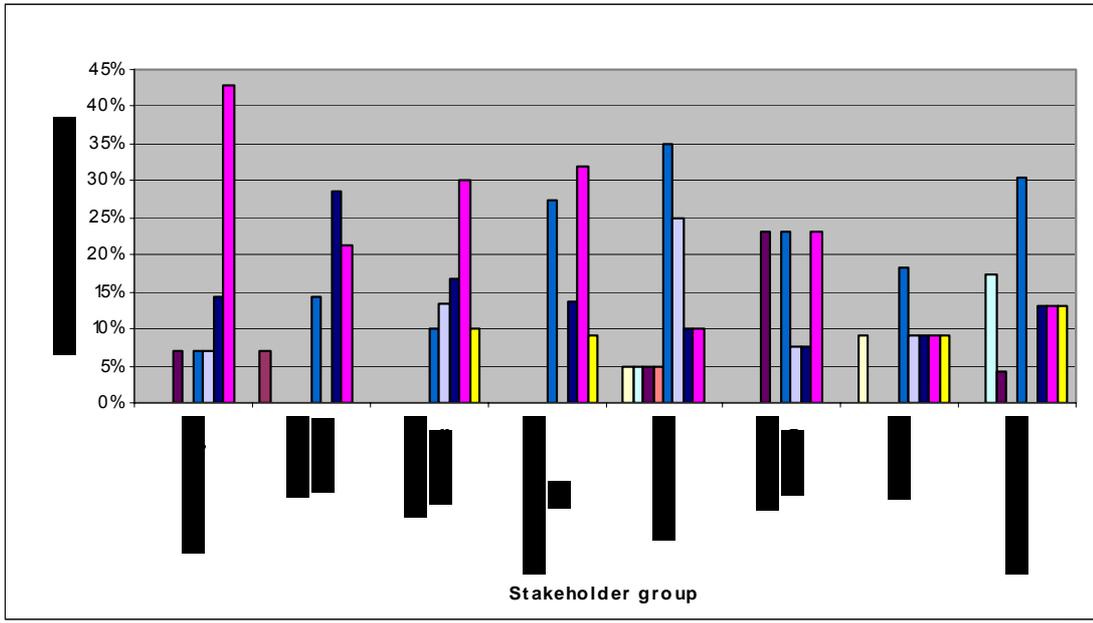


Fig 5 a, b, c: Do internet site with games and prizes impact children's purchasing or pestering of their parents to purchase?
 Proportion (%) of stakeholders in agreement



Legend: 0 - no impact 1 2 3 4 5 6 7 8 9 10 - very high impact

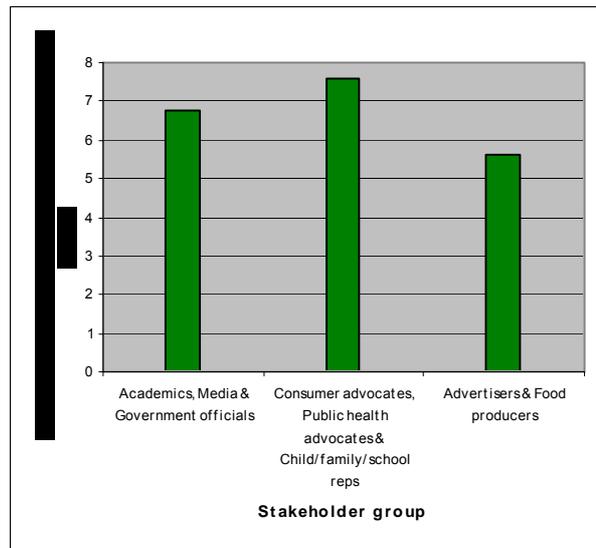
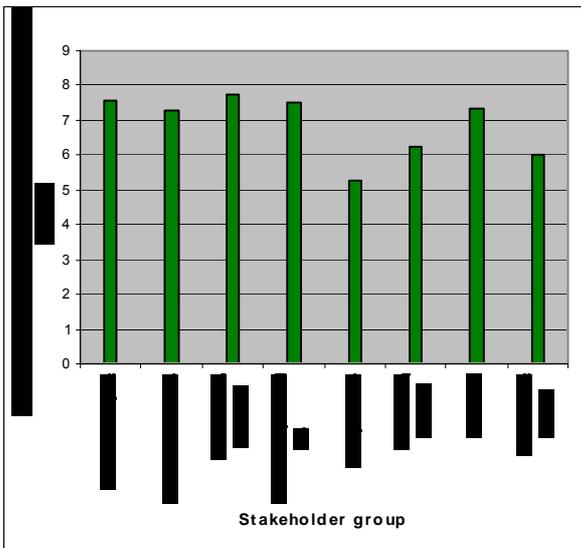
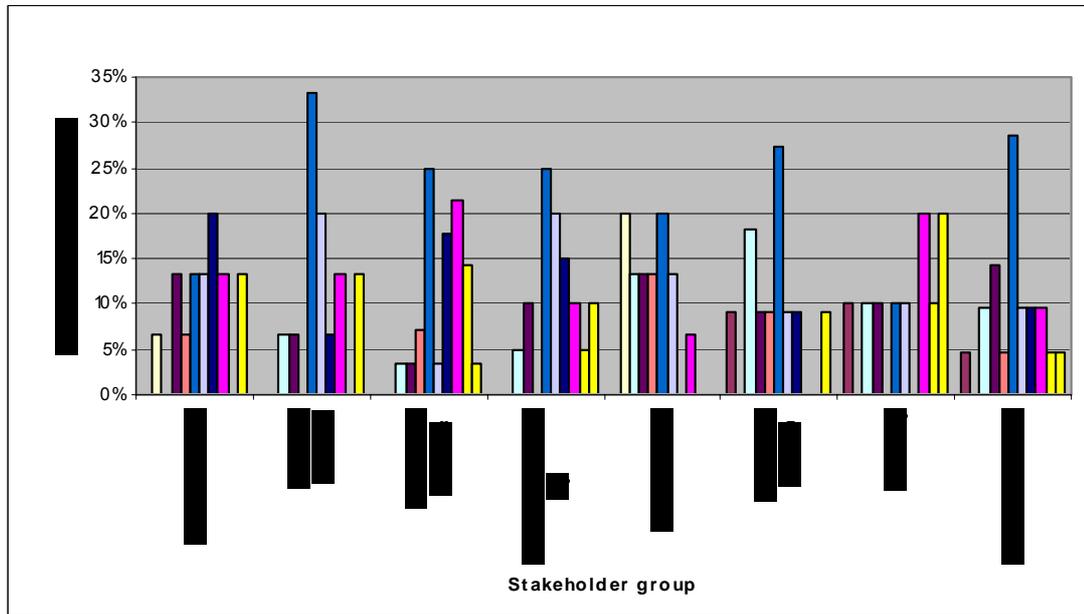


Fig 6 a, b, c: Do school football shirts with fast food branding used for one season impact children's purchasing or pestering of their parents to purchase?
 Proportion (%) of stakeholders in agreement



Legend: 0 - no impact 1 2 3 4 5 6 7 8 9 10 - very high impact

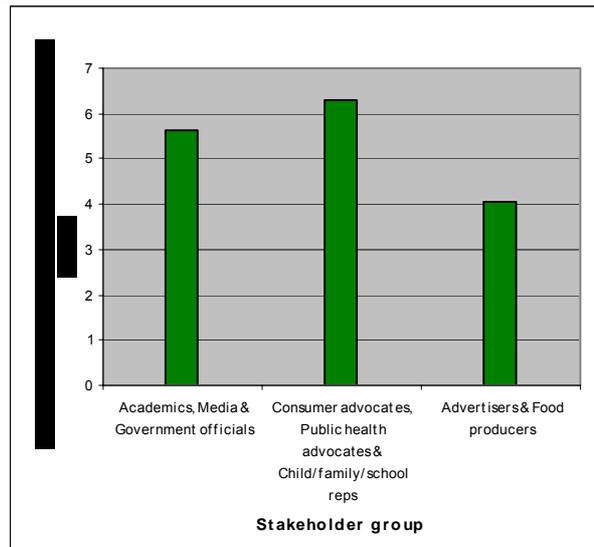
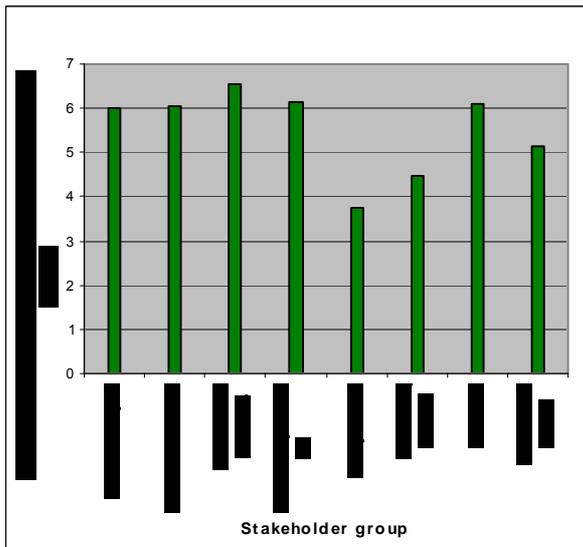


Fig 7 a, b, c: Does a free puzzle with a pack of sweetened cereal, promoted on pack with Shrek3, impact children's purchasing or pestering of their parent's to purchase?
 Proportion (%) of stakeholders in agreement

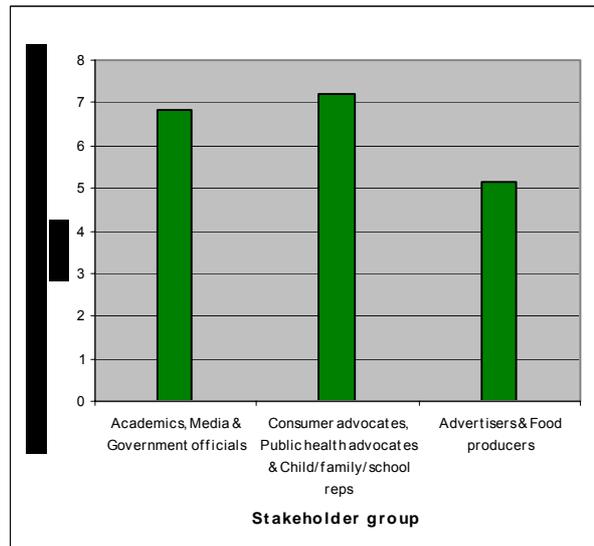
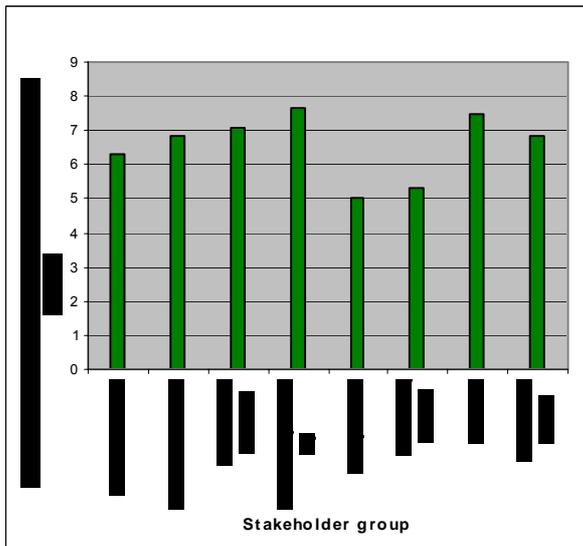
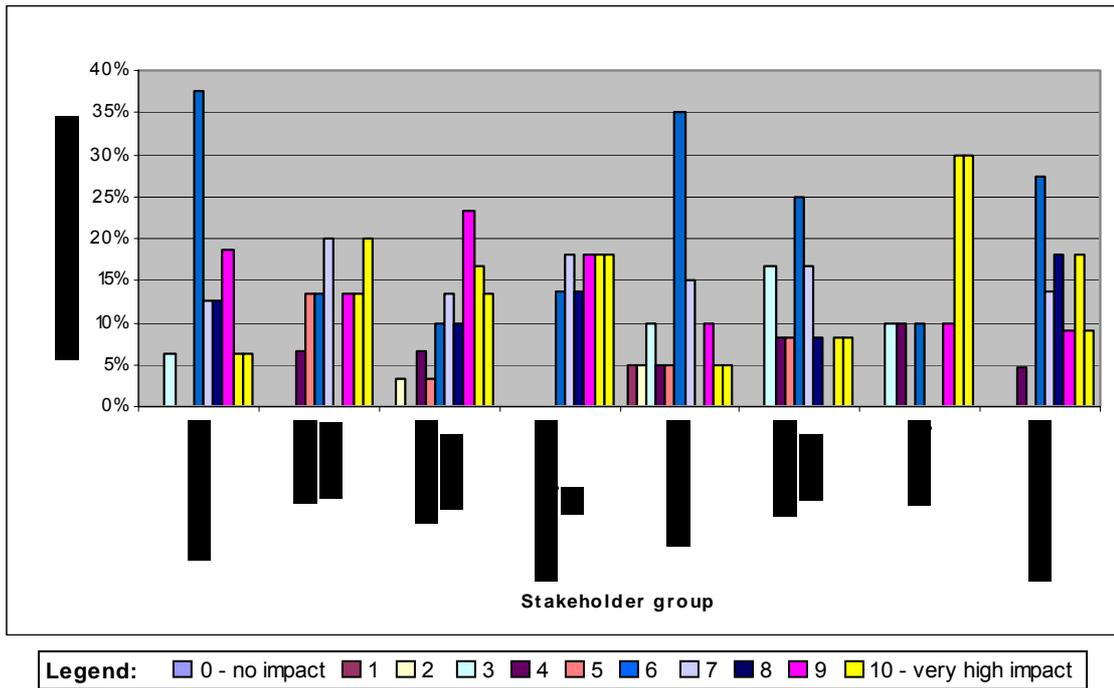


Fig 8 a, b, c: Does product placement of soft drink brands in children's cinema movies impact children's purchasing or pestering of their parents to purchase?
 Proportion (%) of stakeholders in agreement

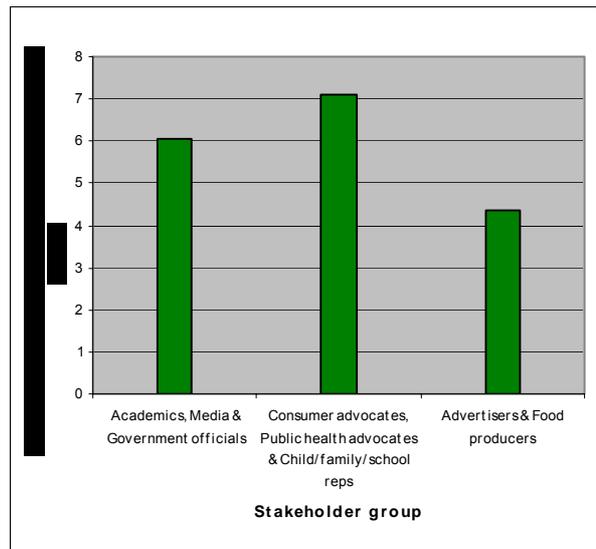
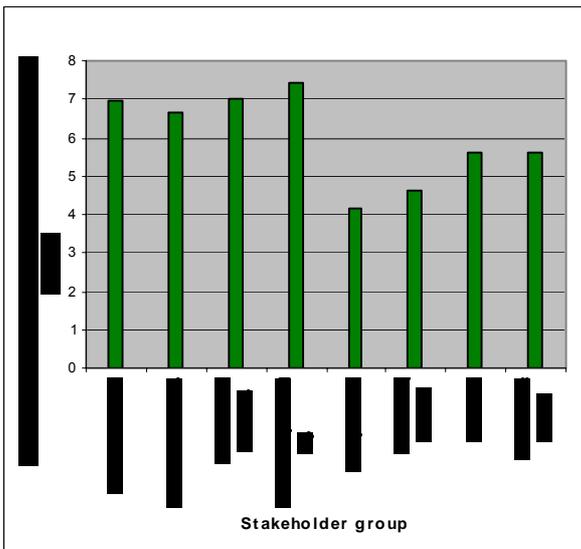
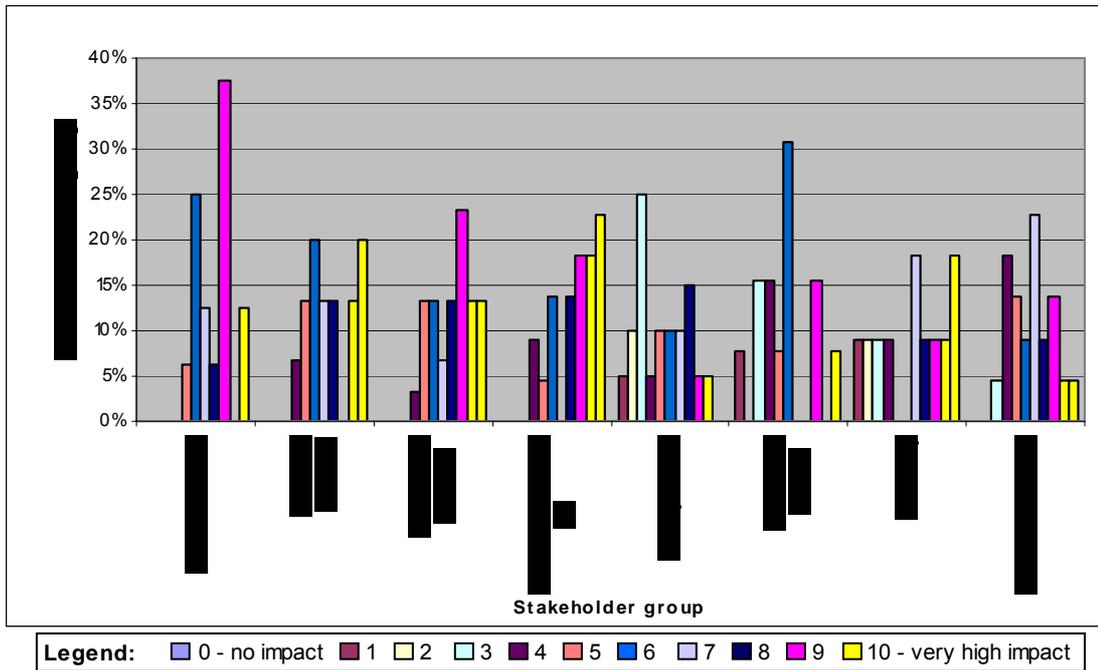


Fig 9 a, b, c: Does displaying cartoon-imaged sweets at all checkouts of a supermarket impact children's purchasing or pestering of their parents to purchase?
 Proportion (%) of stakeholders in agreement

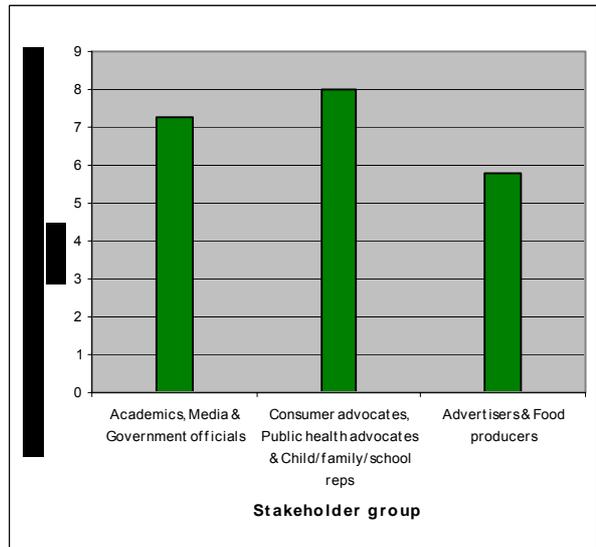
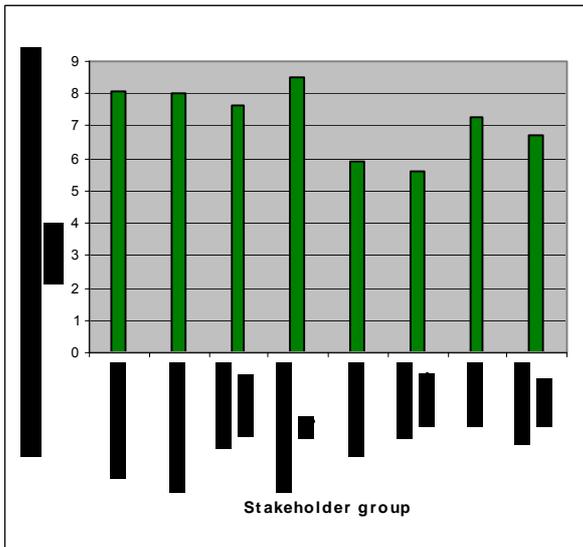
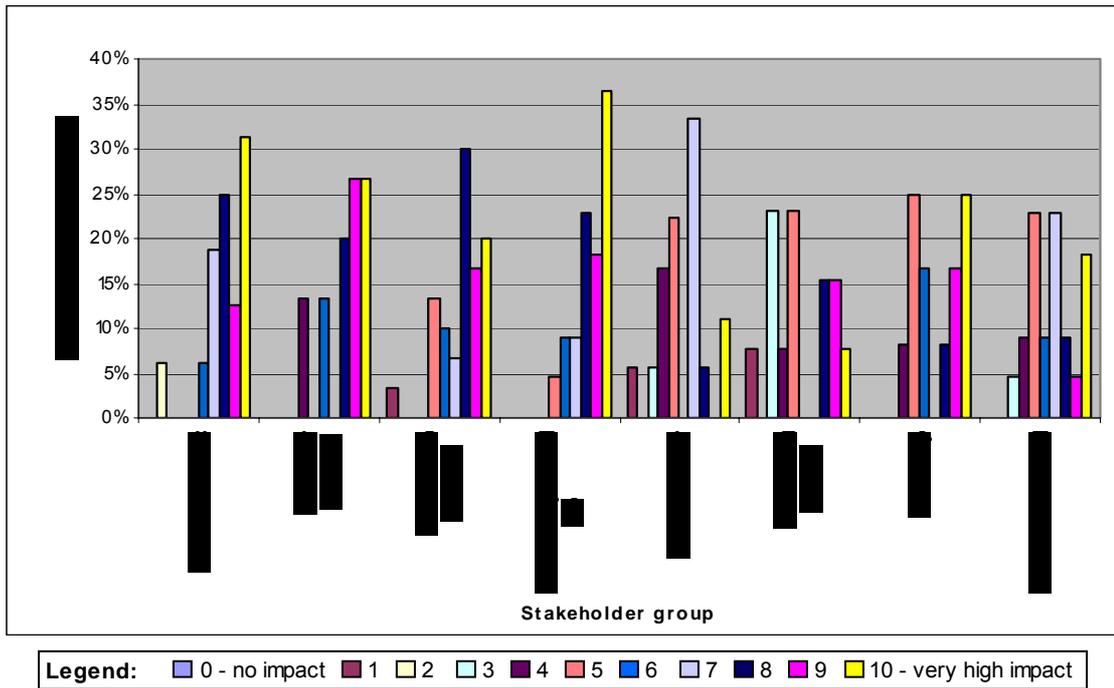


Fig 10 a, b, c: Does a fast food brand logo on every 10th page of a school exercise book impact children's purchasing or pestering of their parents to purchase?
 Proportion (%) of stakeholders in agreement

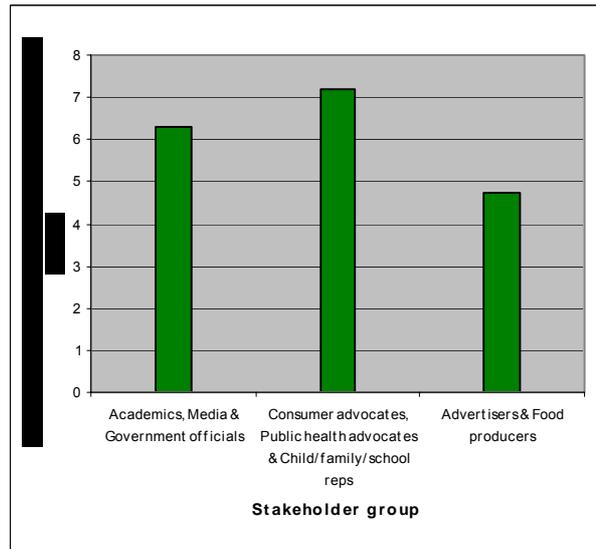
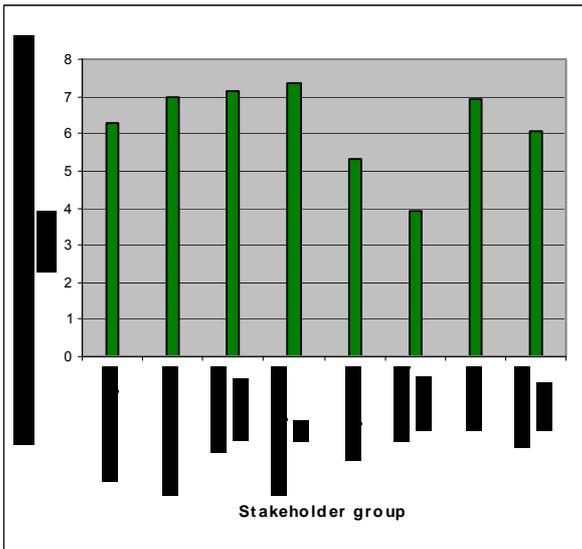
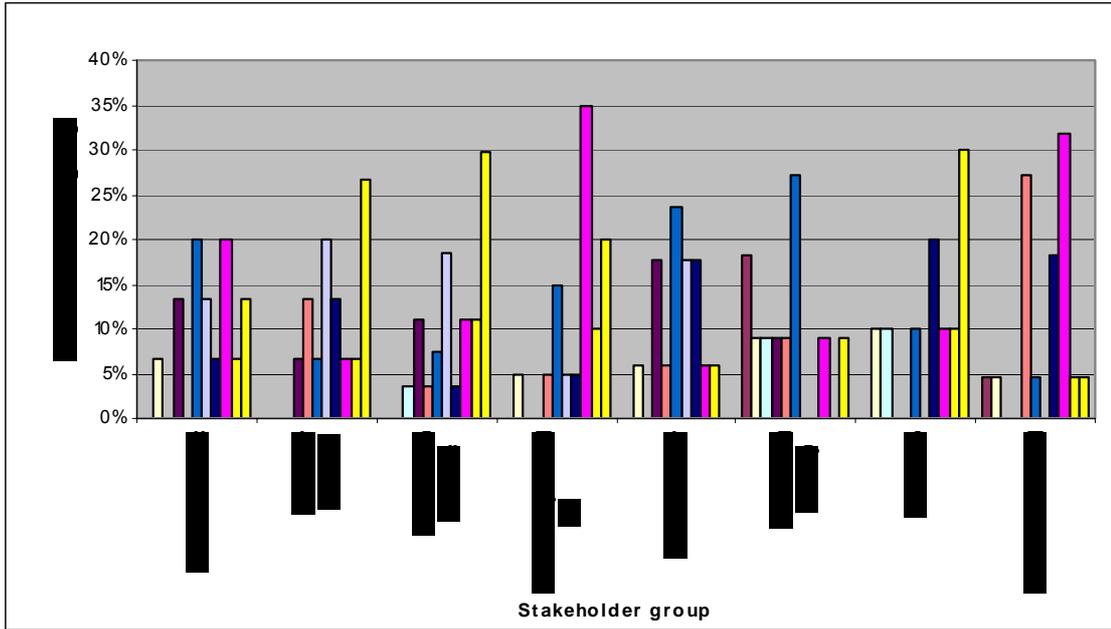
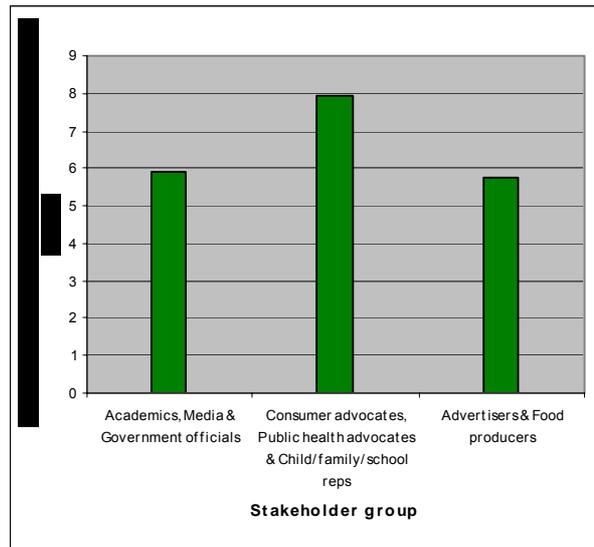
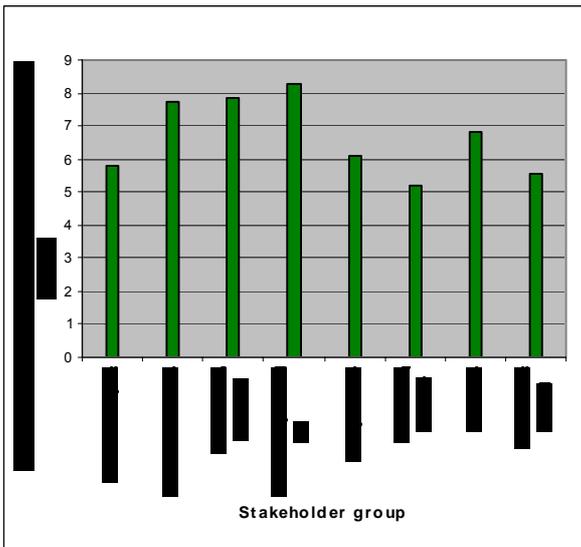
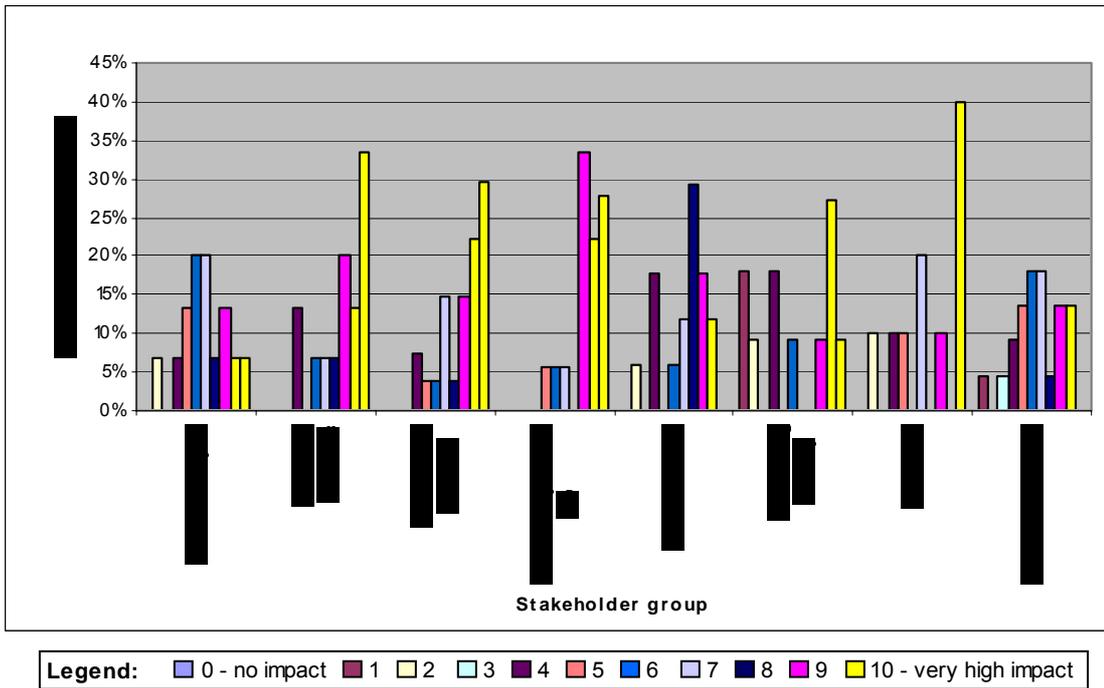


Fig 11 a, b, c: Does a phone text message for fast food impact children's purchasing or pestering of their parents to purchase?
 Proportion (%) of stakeholders in agreement



When comparing Figures 4c – 10c a consistent pattern emerges with regard to stakeholder category and their estimated effect of marketing methods on purchase and pestering response. Advertisers/food producers consistently gave the lowest estimate whereas consumer/public health/family groups gave the highest estimate with academic/media/government in between.

(b) Interest group and impact of children's actual consumption

In addition to being asked to estimate the impact of promotional marketing methods on purchases, the interviewees were also asked to estimate how these methods might influence actual consumption of foods (in terms of increased numbers of portions per week). Interviewees were asked for their view on an estimate in the research literature suggesting that about 25 minutes of TV advertising per week increases the intake of snacks by about one snack per week. Thirty percent of interviewees did not provide a response, including the majority of advertisers and food producers, and more than half of the Belgian, Danish and French stakeholders. Many felt that answering would be pure speculation, or did not feel they had adequate evidence to do so. Others, although unable to quantify the impact, did acknowledge their belief that advertising increases snack consumption.

"I presume they will increase the intake of snacking but I have no basis to state an amount. Unless somebody does a review nobody will give you a proper figure." (ID16, consumer advocates)

"I can tell you that reason and logic would say it might [increase snacking] but I can't answer." (ID19, academic experts)

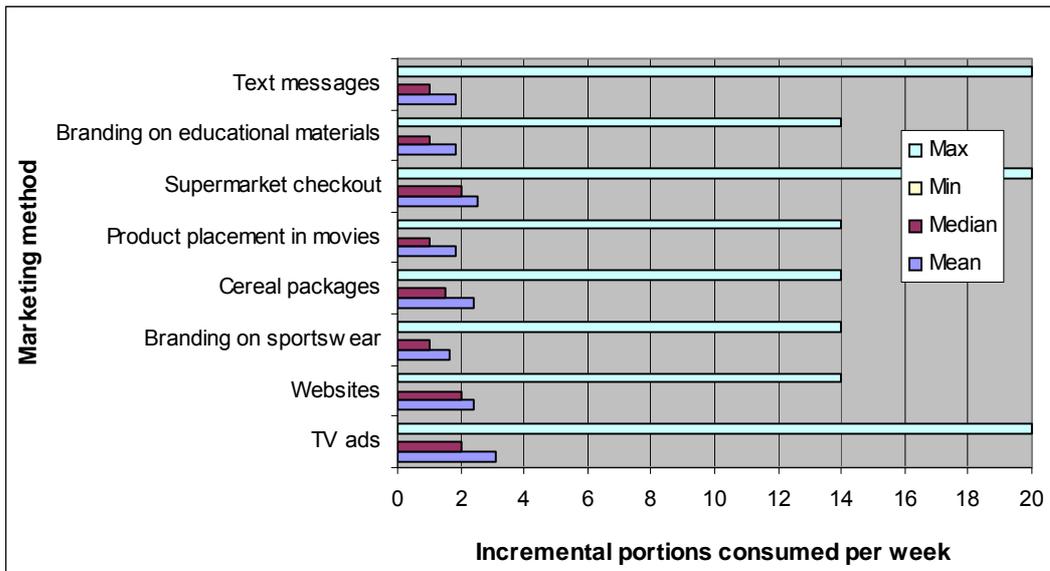
Reasons given for not completing these questions included: lack of official organisational position on the issues raised in these questions, therefore it was not appropriate to offer personal opinions; lack of available evidence; and the interaction of other environmental, familial, socio-economic and behavioural factors. In some countries, for instance the Czech Republic, advertising via certain media types such as sportswear, text messages and educational material do not exist, thus participants ignored questions about the impact of such methods, and commented only on possible impact of regulations in future.

Of those who did answer, 7% thought the figure was overestimated, of whom more than half were food industry representatives. The remainder (93%) felt this figure was believable, 27% of whom (primarily academics (7), public health advocates (6) and child and family representatives (5)) believed it was probably an underestimate. The need to take into account the cultural differences within Europe was once again expressed, for example the specificity of the French culture in terms of food behaviours was evoked.

"An English child is not a French child. The family environment, the relationship with food is globally not at all the same. Even if it [the child] is not English, but Dutch, Swedish etc, the relationship with food in a French family is nothing like that in these other families." (FR ID 2, Cat. 6: government officers and regulators)

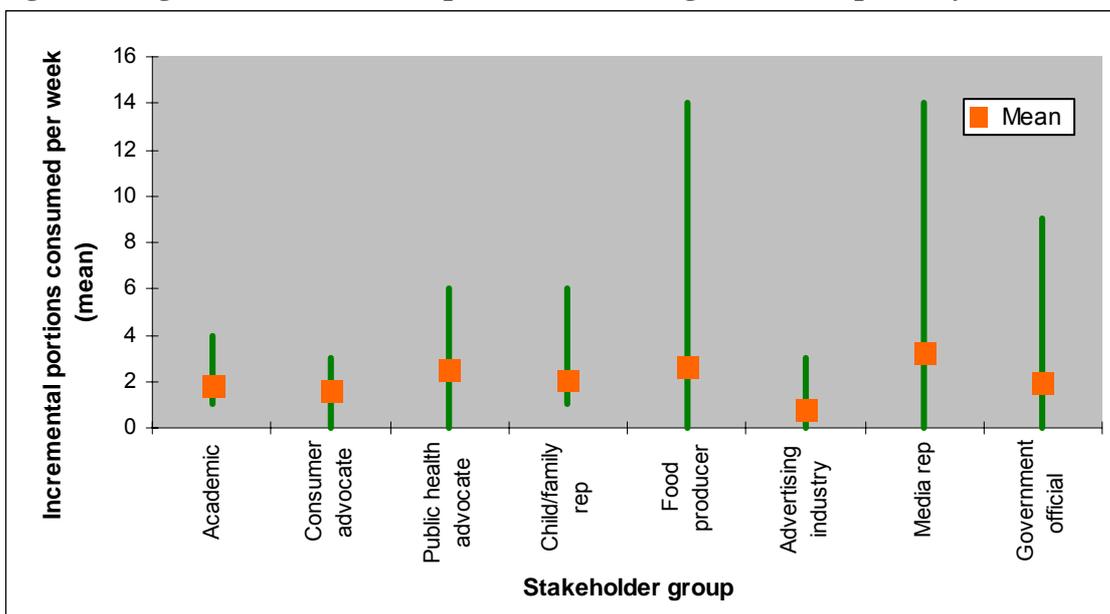
Those who did answer provided estimations for each of the marketing methods listed, with estimates ranging from 0 to 20 snack portions per week. TV advertisements were believed to have the greatest impact on consumption, receiving the highest mean, median and minimum scores from those who responded (Figure 12, below). This view was consistent with the perceived impact of TV ads on purchasing and pestering behaviour, as described above.

Fig 12: Perceived impact on consumption by marketing method



Taking all forms of promotional marketing combined, stakeholders estimated the average effect of these marketing approaches to lead to the consumption of between one and three extra portions of snack or soft drink per week. Lowest estimates were from the advertising industry, but notably, the highest estimates were given by the food producers and the media organisations interviewed (Figure 13).

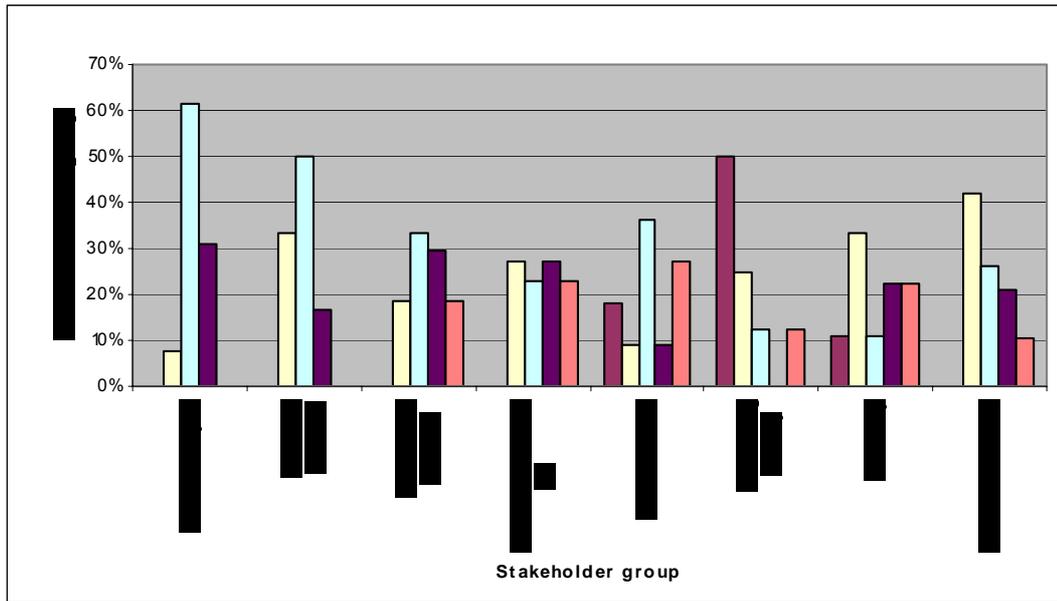
Fig 13: Range of estimates on impact of advertising on consumption by stakeholder group



More details on the differences between forms of promotional marketing and the scores given by different stakeholders are shown in the set of graphs following (Figures 14-21, below). These show the estimates for each of eight different promotional marketing approaches.

Note that there is a wide variation in response within each stakeholder category: for instance some representatives in the food industry gave scores of zero and others estimated that the marketing method elicited an increase in consumption of seven or more portions per week, more than one portion per day.

Fig 14 a, b, c: Would TV ads for a potato snack or a soft drink shown 2x daily for a week increase consumption of potato snacks or soft drinks?
 Proportion (%) of stakeholders in agreement



Legend: 0 (light blue) 1≤1/w week (maroon) >1, <3/w week (yellow) ≥3, <7/w week (cyan) ≥7/w week (purple)

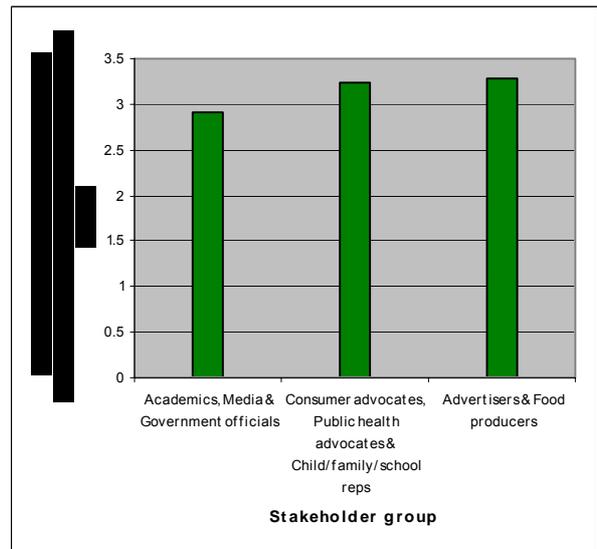
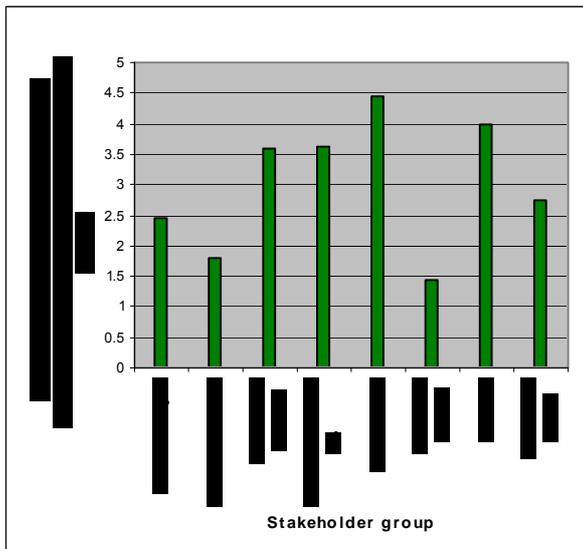
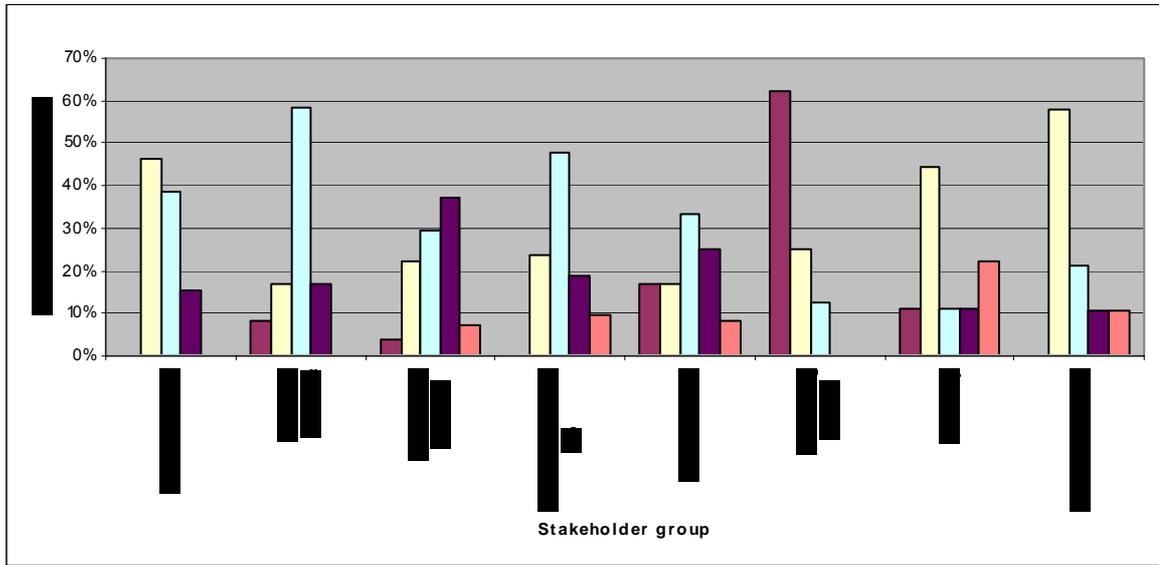


Fig 15 a, b, c: Would an internet site for a brand of potato snacks, with games increase consumption?

Proportion (%) of stakeholders in agreement



Legend: 0 (blue) 1≤1/w week (maroon) >1, <3/w week (yellow) ≥3, <7/w week (cyan) ≥7/w week (purple)

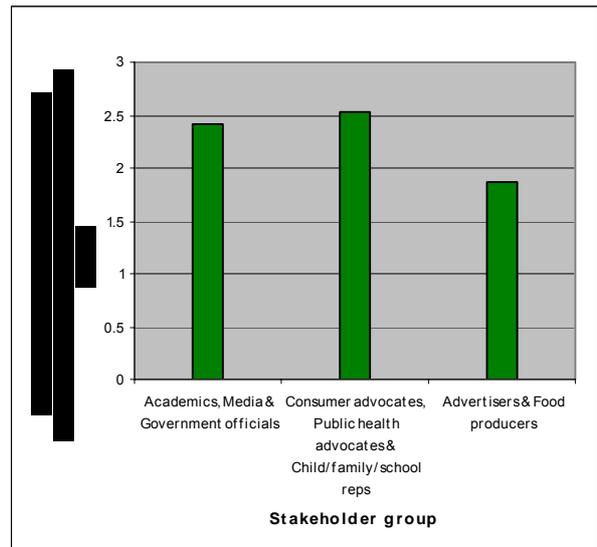
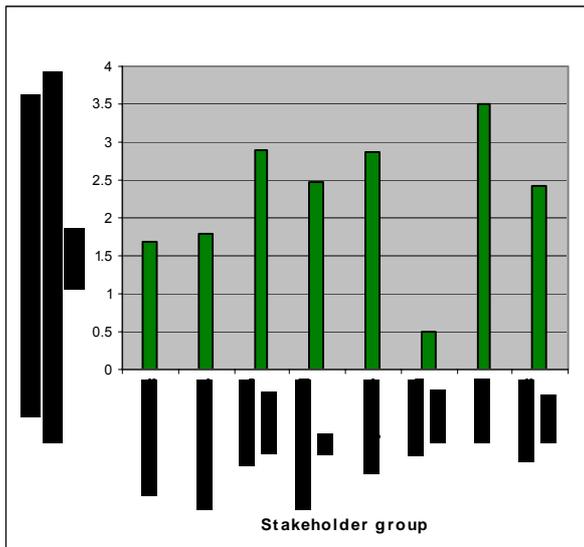
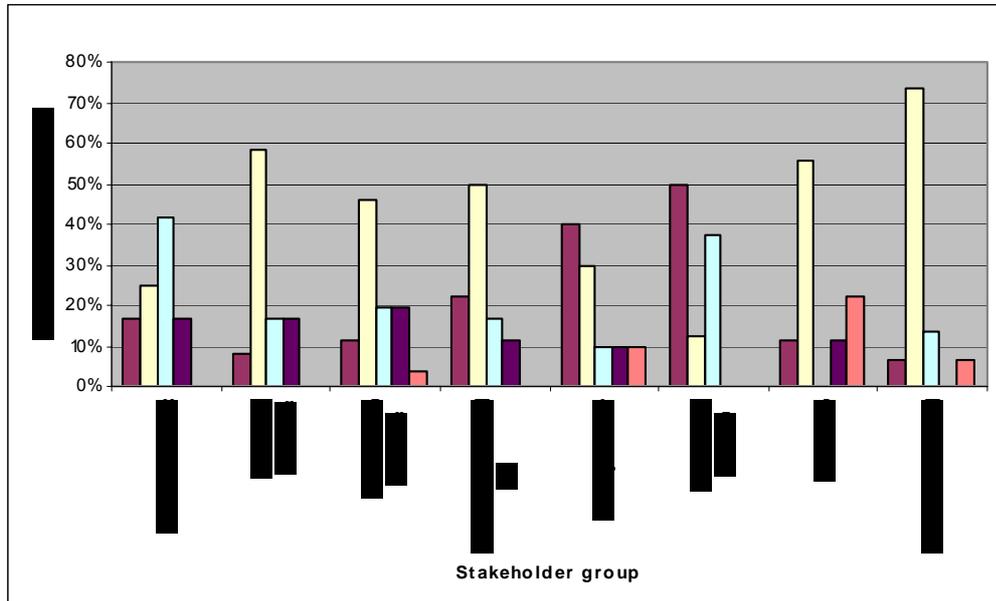


Fig 16 a, b, c: Would school football shirts with fast food branding used for one season increase consumption?

Proportion (%) of stakeholders in agreement



Legend: 0 1≤1/w week >1, <3/w week ≥3, <7/w week ≥7/w week

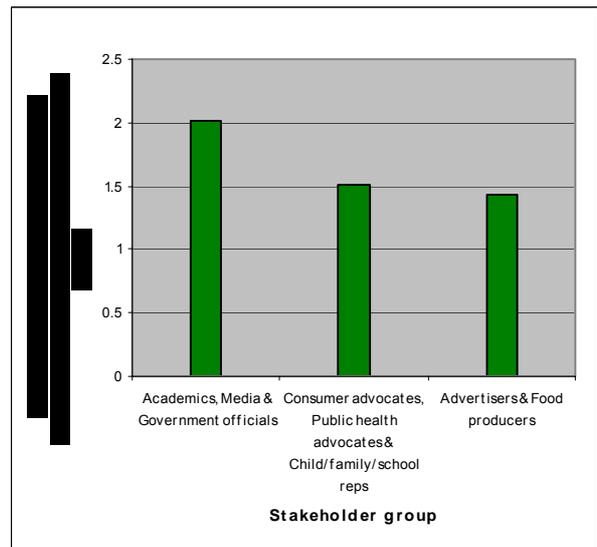
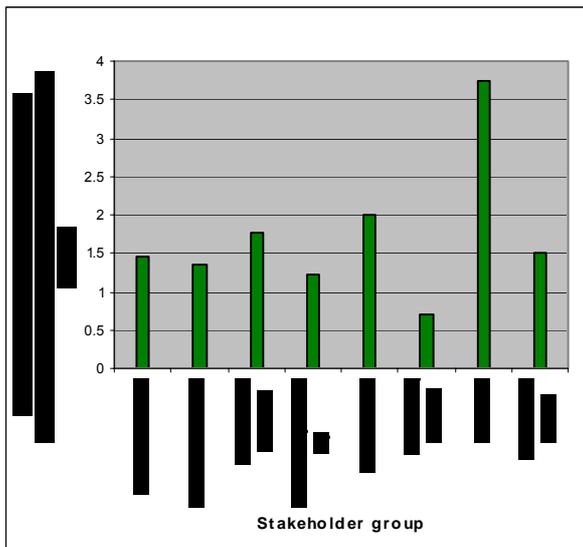
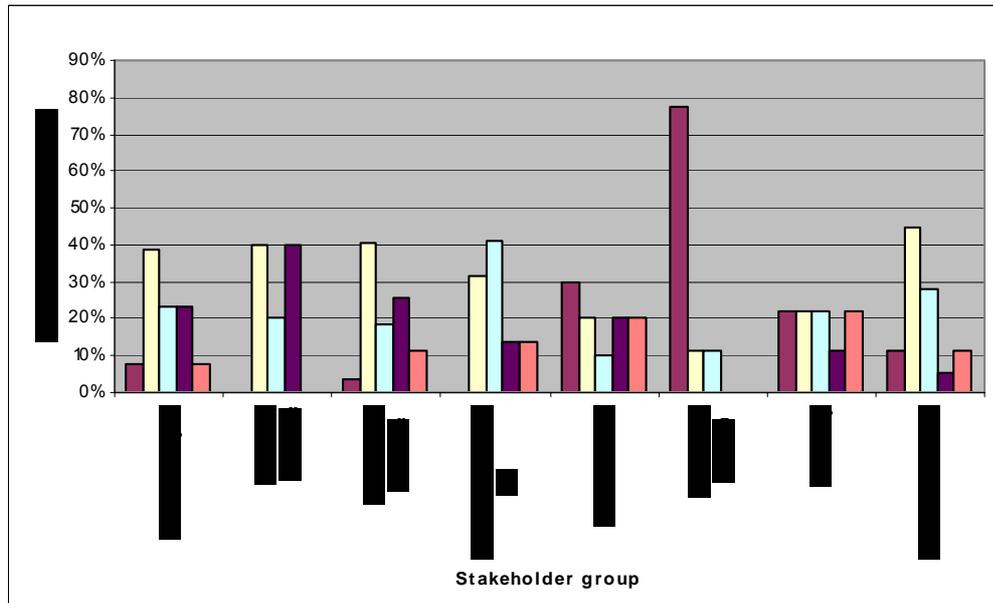


Fig 17 a, b, c: Would a free puzzle with pack of sweetened cereal, promoted on pack with Shrek3, increase consumption?

Proportion (%) of stakeholders in agreement



Legend: 0 (blue) 1≤1/w week (maroon) >1, <3/w week (yellow) ≥3, <7/w week (cyan) ≥7/w week (purple)

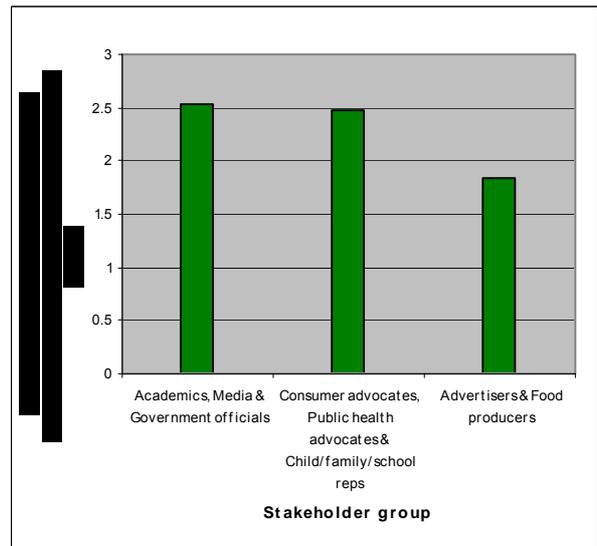
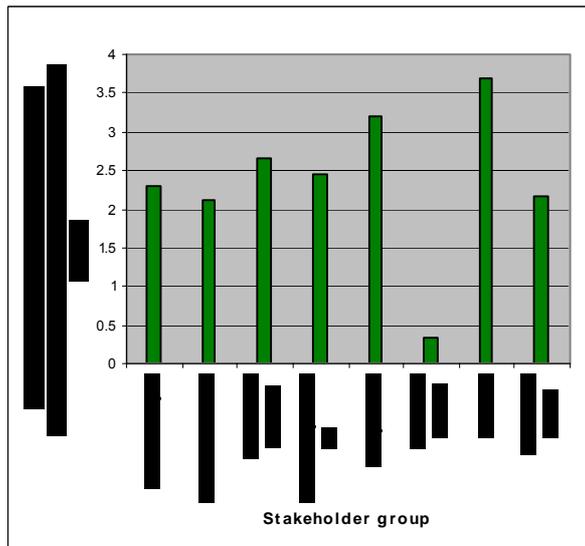
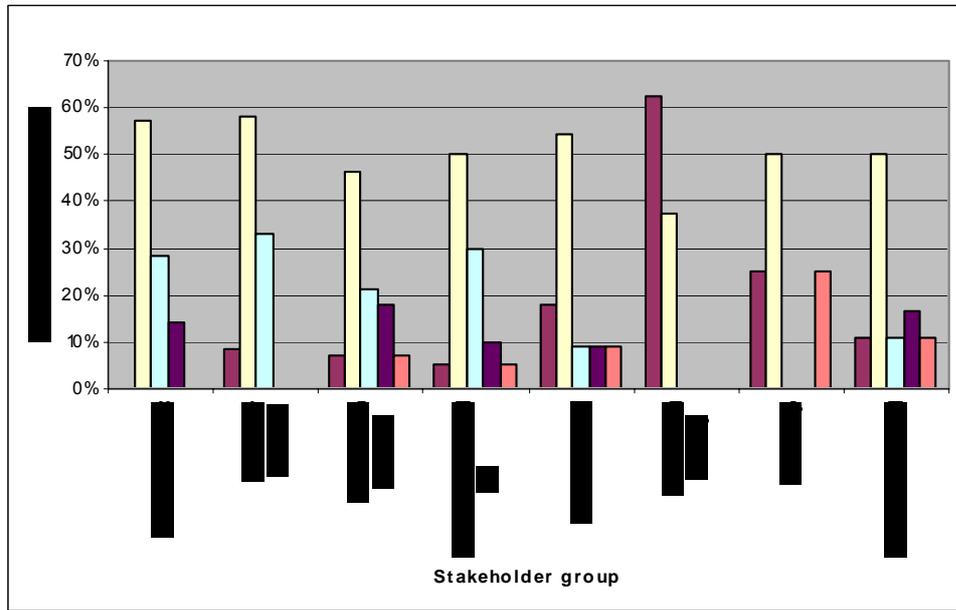


Fig 18 a, b, c: Would product placement of a soft drink brand in a children's cinema movie increase consumption?

Proportion (%) of stakeholders in agreement



Legend: 0 (light blue) 1≤1/w week (maroon) >1, <3/w week (yellow) ≥3, <7/w week (cyan) ≥7/w week (purple)

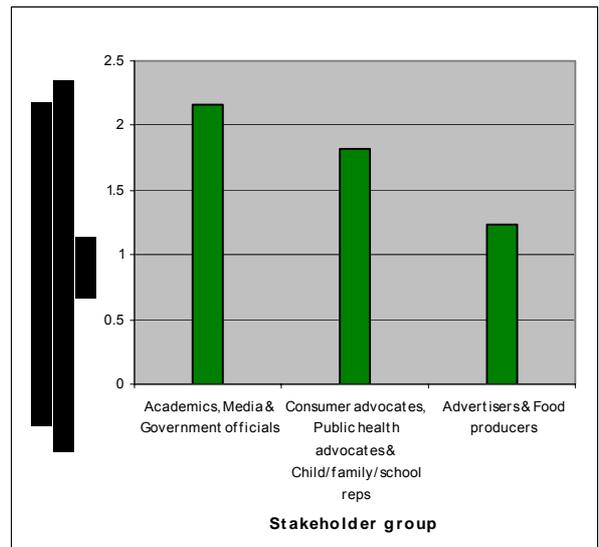
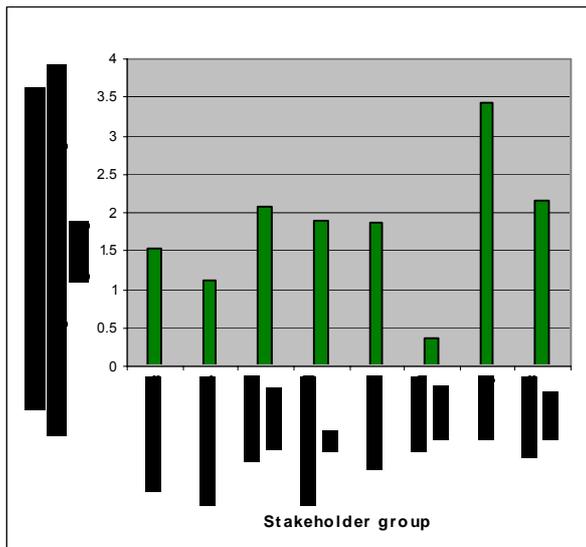


Fig 19 a, b, c: Would positioning a product at all checkouts of a supermarket used regularly increase consumption?

Proportion (%) of stakeholders in agreement

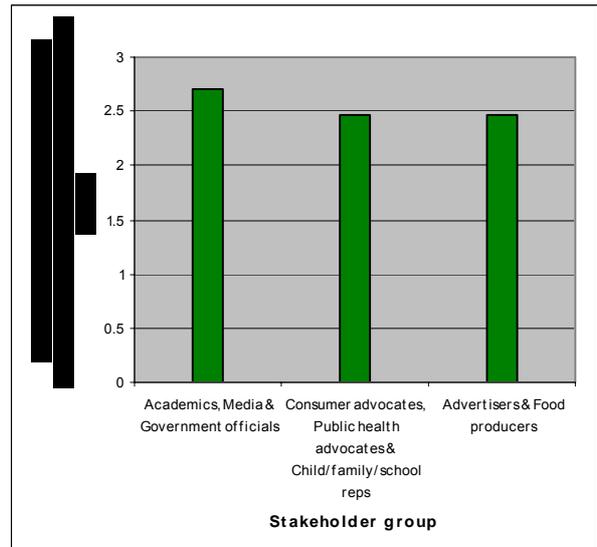
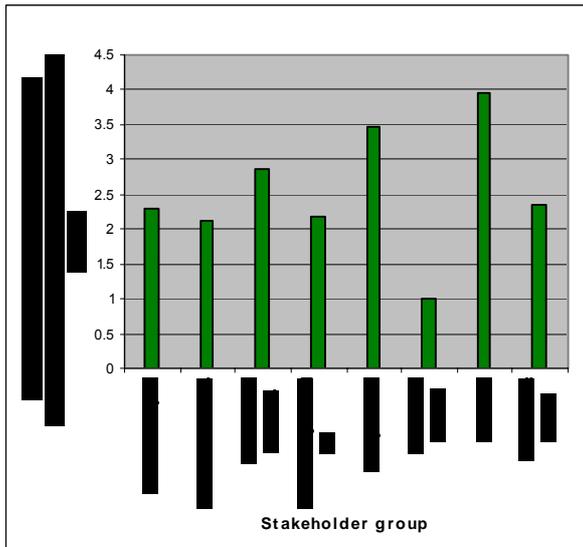
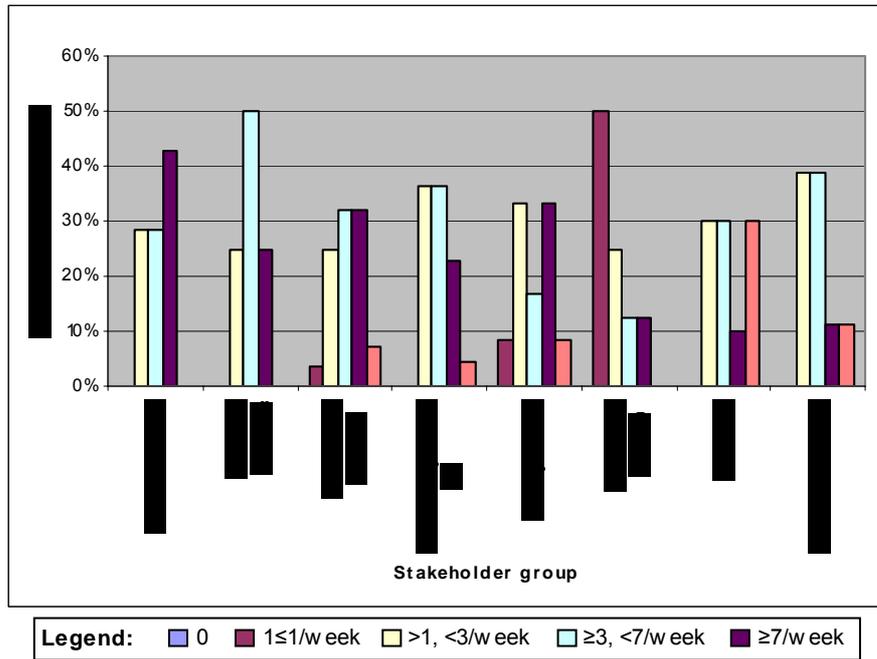


Fig 20 a, b, c: Would including the branded logo of a potato snack or soft drink on every 10th page of a school exercise book increase consumption?
 Proportion (%) of stakeholders in agreement

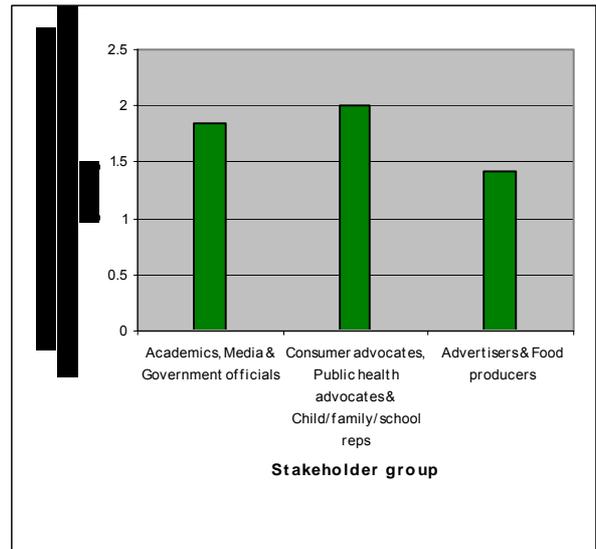
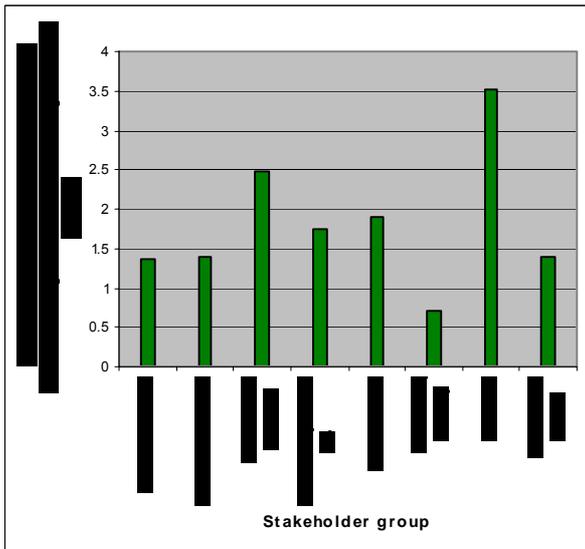
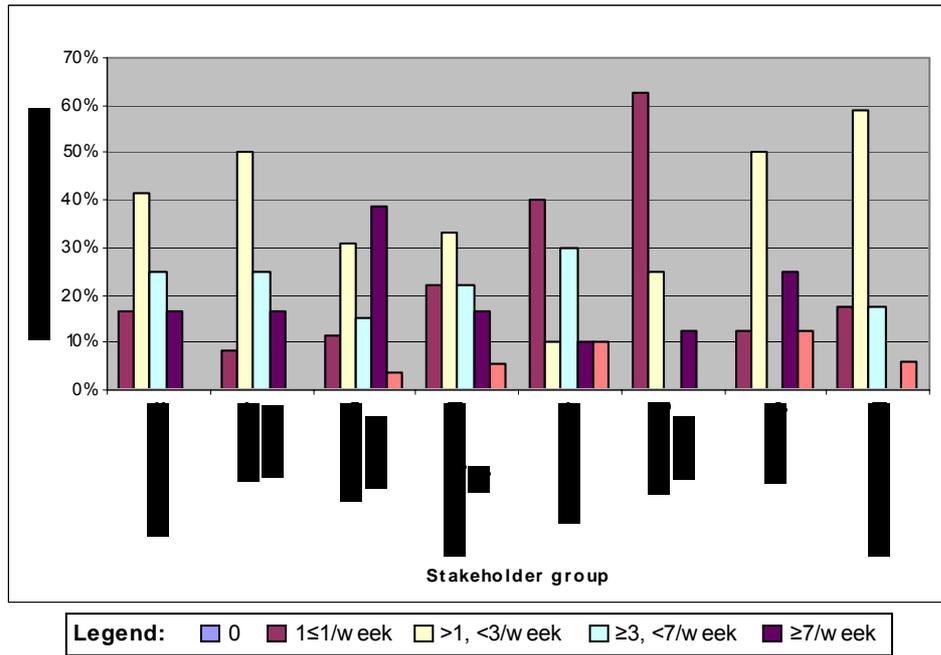
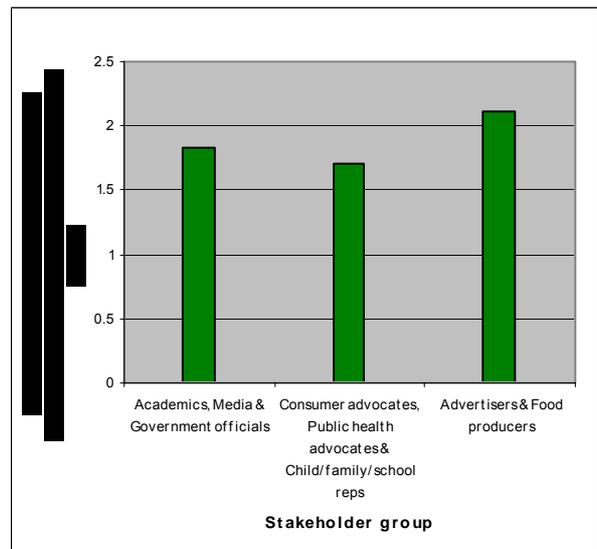
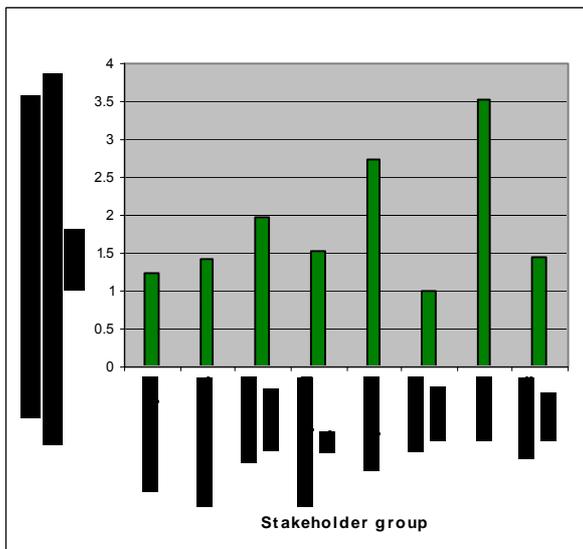
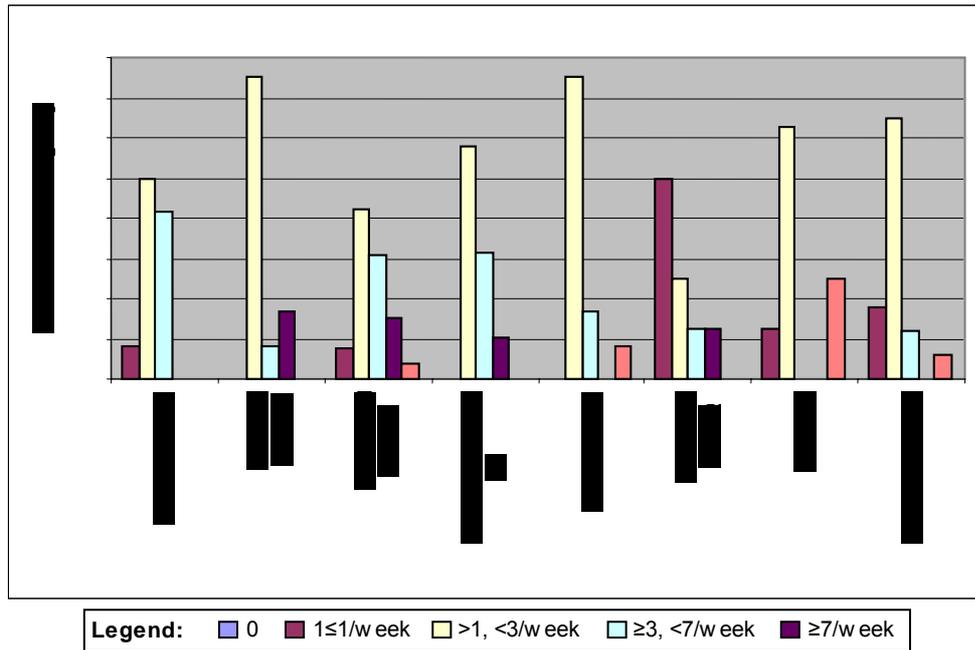


Fig 21 a, b, c: Would a phone text message for a ‘special’ fast food offer sent to child’s phone on Saturday morning increase consumption?
 Proportion (%) of stakeholders in agreement

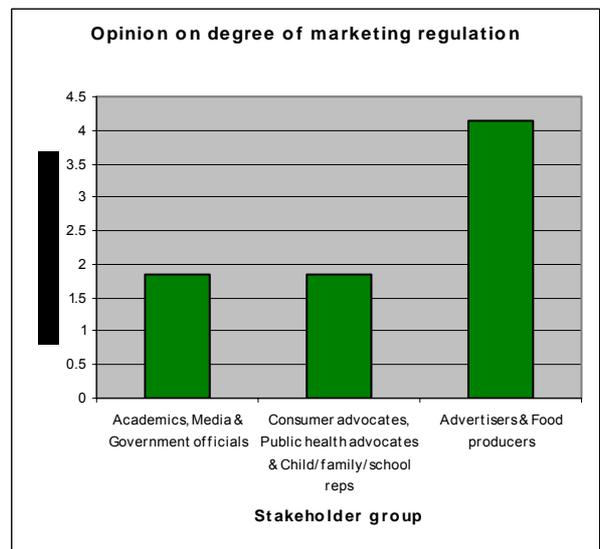
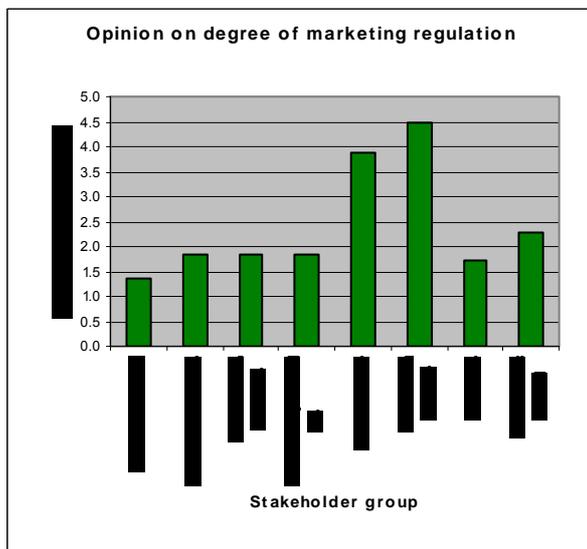
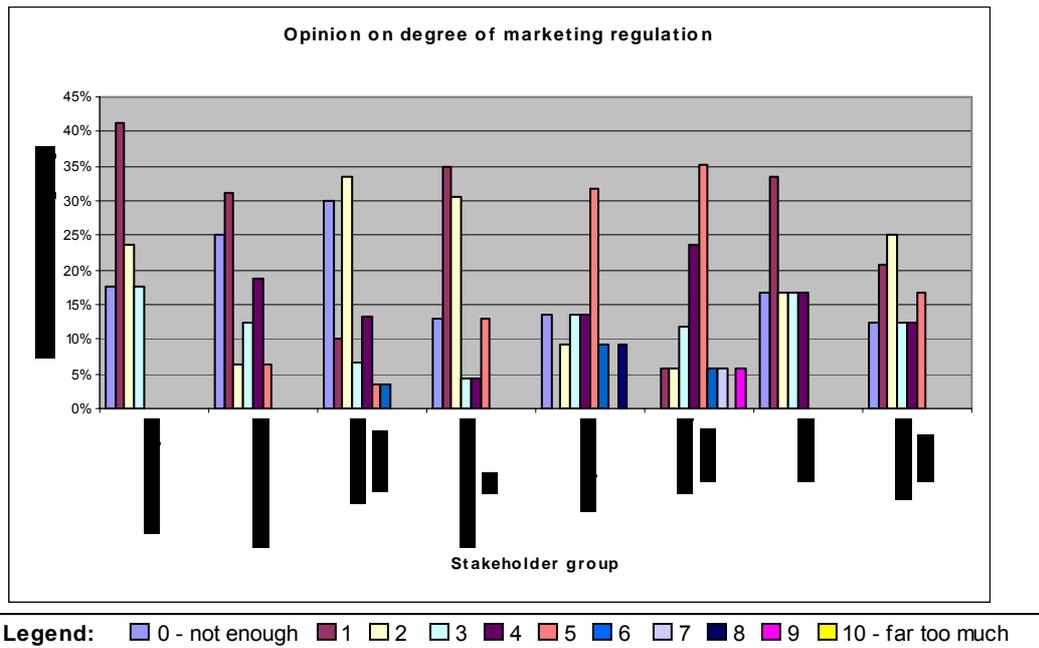


In contrast to the consistent response pattern by stakeholder group on the impact of marketing methods on purchase and pestering, response patterns with regard to impact on increased consumption were more nuanced. In particular there was a diverging response within the third group between food producers and advertisers. Whereas they agreed on a relative low impact of marketing on purchase, food producers believed in a high and advertisers in a low impact of marketing on increased consumption.

(c) Interest group and view on need for stronger regulatory controls

A further analysis was undertaken to assess the differences between interest groups and the stakeholders' views of the adequacy of current levels of controls on marketing to children: in terms of not enough, adequate or too much control, rated from 0 to 10. Figure 22 below shows the stakeholders' quantified estimate of the adequacy of current marketing restrictions for each interest group, and for interests groups clustered into three categories.

Fig 22 a, b, c: Stakeholders' rating of the adequacy of current controls on marketing to children (from 0 = not enough to 10 = far too much)



As the figure shows, stakeholders stating that current restrictions were adequate were most likely to be found among advertisers and food producers, while the average rating given by all other stakeholders was below 2.0, indicating a strong belief that current restrictions were not adequate.

Quantitative Impact analysed by indicators of institutional power

(a) Power and impact on children's food choices

One of the most important concerns in public health is the potential power to influence health policy held by interested parties, for example the ability of the commercial sector or the consumer advocacy sector to influence public opinion and political processes. The stakeholder interviews conducted for the Health Impact Assessment provided information on the power of the individual stakeholder's institutions in these respects, indicated by the economic size of the organisation, the number of staff, and perhaps most significantly, the size of its media or press relations department.

In the following figures the quantified health impact assessments have been analysed in respect of the stakeholder organisations' level of power to influence policy expressed in terms of organisational size, staff and media-relations, and as a composite score derived from these (see methods section).

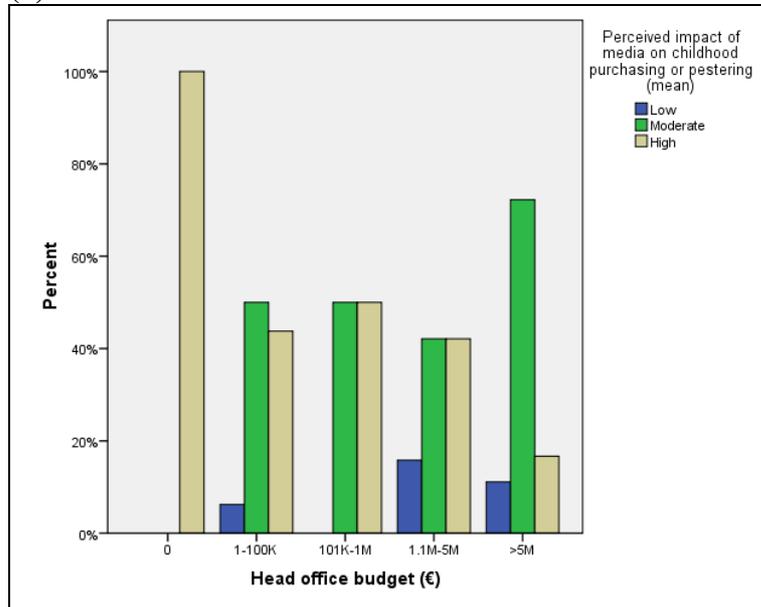
In Fig 23 below, the stakeholders' quantified estimate of the impact of marketing on children's food purchases (or pestering for food purchases) is shown ranked against the size of the stakeholder's organisation's annual turnover. For clarity, stakeholders are grouped into three categories: low impact (average scores 0-3), moderate impact (4-6) and high impact (7-10).

A clear relationship can be seen: stakeholders stating there was a high impact were most commonly found in low-turnover organisations, while stakeholders stating there was only a low impact were most commonly found in the high-turnover organisations. The intermediate size organisations showed consistent intermediate values, indicating a 'dose-response' relationship: the larger the organisation the more likely the stakeholder was to state that marketing had only a small or zero impact on children's food choices.

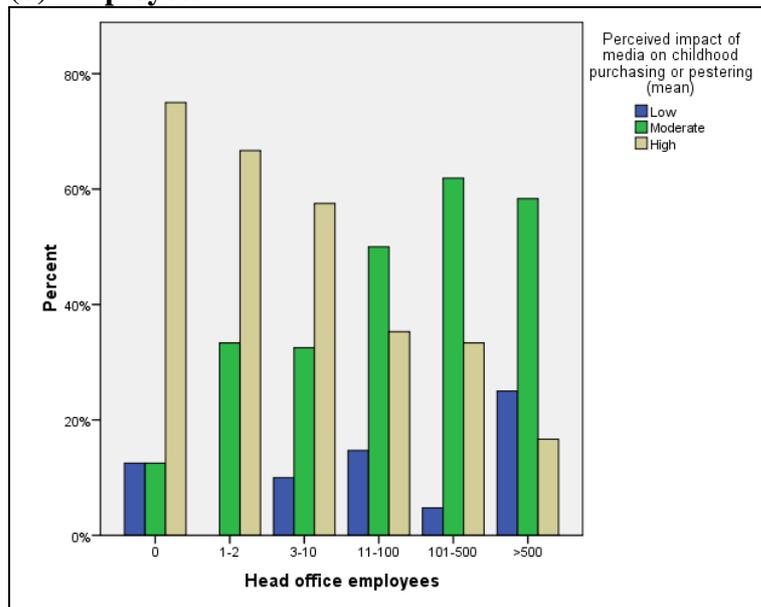
A very similar relationship is found between stakeholder's scores and the size of the organisation stated in terms of the number of employees working in the main offices of the organisation.

Fig 23: Stakeholder assessment of marketing impact on children’s food choices, ranked by size of the stakeholder’s organisation, measured as (a) annual turnover and as (b) numbers of employees.

(a) Annual turnover



(b) Employees

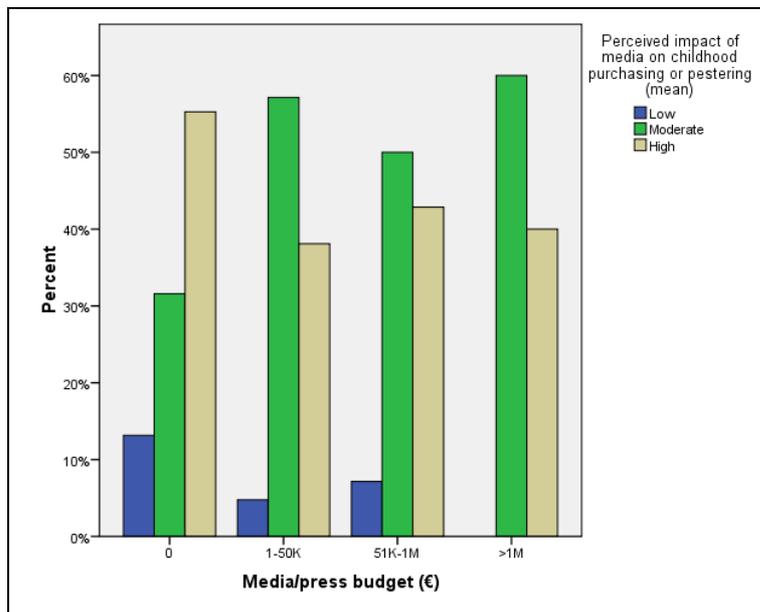


A similar analysis was undertaken to assess the potential relationship between an organisation’s capacity to influence its media coverage in relation to the stakeholder’s assessment of the impact of advertising on children’s consumption patterns. Figure 24 below shows the stakeholders’ quantified estimate of the impact of promotional marketing on children’s food choices (food purchases or food purchase pestering) ranked against the organisation’s media capacity, assessed in terms of the media department’s annual budget, the numbers of employees in the media department and the organisation’s frequency of citation in the public media (all as assessed by the stakeholder). As above, stakeholders’ assessments of the impact of marketing on children’s food choices are grouped into three categories: low impact (average scores 0-3), moderate impact (4-6) and high impact (7-10).

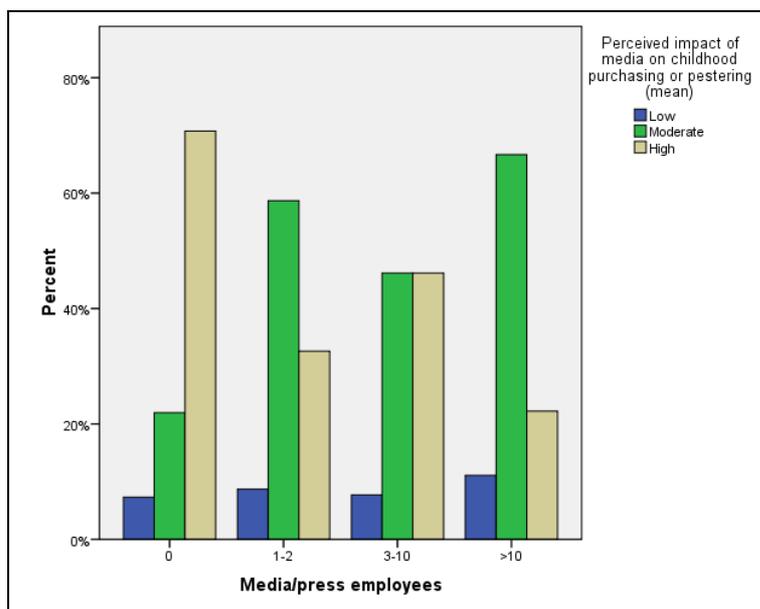
The results indicate an inverse relationship between the media capacity of an organisation and that organisation's stakeholder's views on the impact of promotional marketing on children's food choices: the smaller the media capacity and the media coverage the more likely the stakeholder viewed the impact to be high. Stakeholders from organisations which were rarely or never referred to in the media tended to most likely to believe marketing impact on children's choices was high.

Fig 24: Stakeholder assessment of marketing impact on children's food choices, ranked by size of the stakeholder's media department, measured as (a) annual budget and (b) numbers of staff.

(a) Media department budget



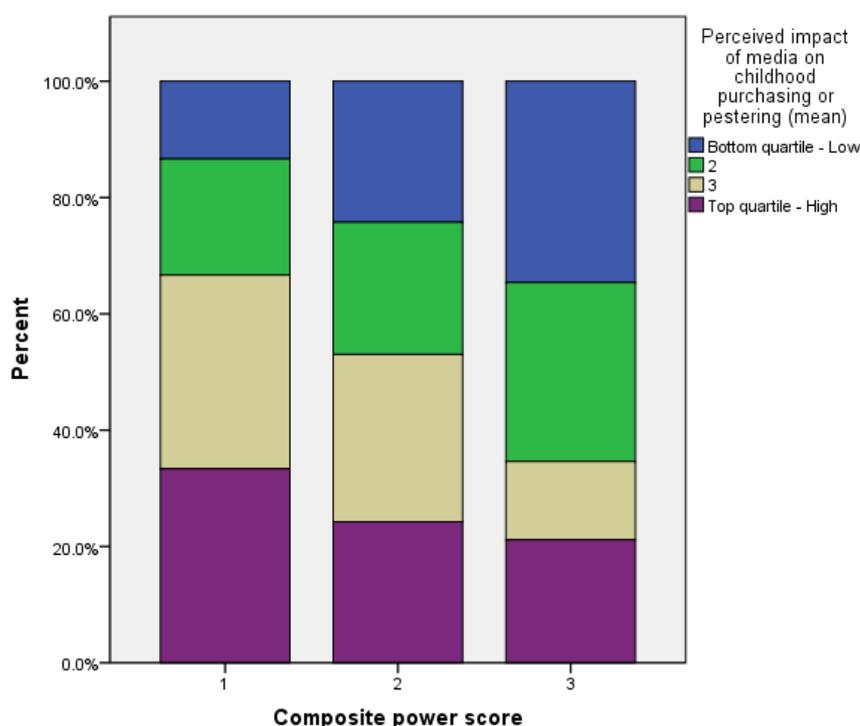
(b). Media department staff



Composite power scores

Power scores were analysed with respect to the stakeholder's quantified estimates of the impact on children's food purchasing (or pestering for food purchases). Resulting estimates were divided into quartiles from the lowest 25% to the highest 25%. The graph shows a clear trend: those stakeholders from lower-power organisations are more likely to give higher estimates and less likely to give low estimates, compared with stakeholders from higher-power organisations (Figure 25, below).

Fig 25: Perceived impact of marketing (quartiles) on purchase or pestering by power score of stakeholder.



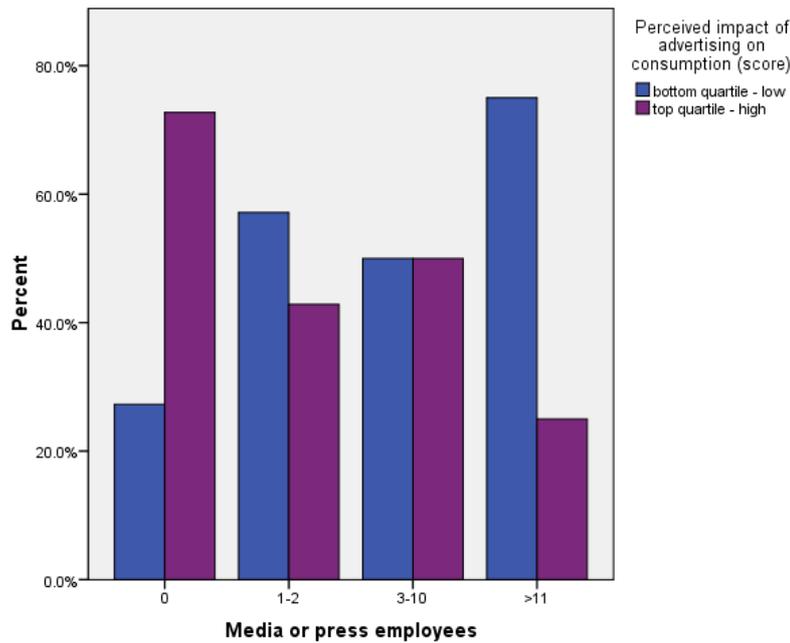
(b) Power and impact on children's actual consumption

A similar analysis was undertaken to assess the potential relationship between an organisation's indicators of power and influence, and the stakeholder's views on the impact of marketing on children's actual consumption. The relationships were less clearly identifiable, although the trends were in a similar direction. An analysis of the size of an organisation's press department (as an indicator of its ability to influence the media) in relation to the stakeholder's assessment of the impact of advertising on children's consumption patterns showed an inverse relationship. Figure 26 below shows the stakeholders' quantified estimate of the impact of promotional marketing on children's food consumption ranked against the size of the stakeholder's organisation's press department (numbers of staff). For clarity, only those stakeholders who stated that marketing had a low impact on consumption and those who stated it had a high impact on consumption are shown (the lowest and highest 25% of scores).

The relationship is again fairly clear: stakeholders stating there was a high impact were most commonly found in organisations with no press staff, while stakeholders stating there was only a

low impact were most commonly found in organisations with more than ten staff. Again, the intermediate size organisations showed consistent intermediate values, indicating a ‘dose-response’ relationship: stakeholders from an organisation with a large press department were more likely to state that marketing had only a small or no impact on children’s food consumption.

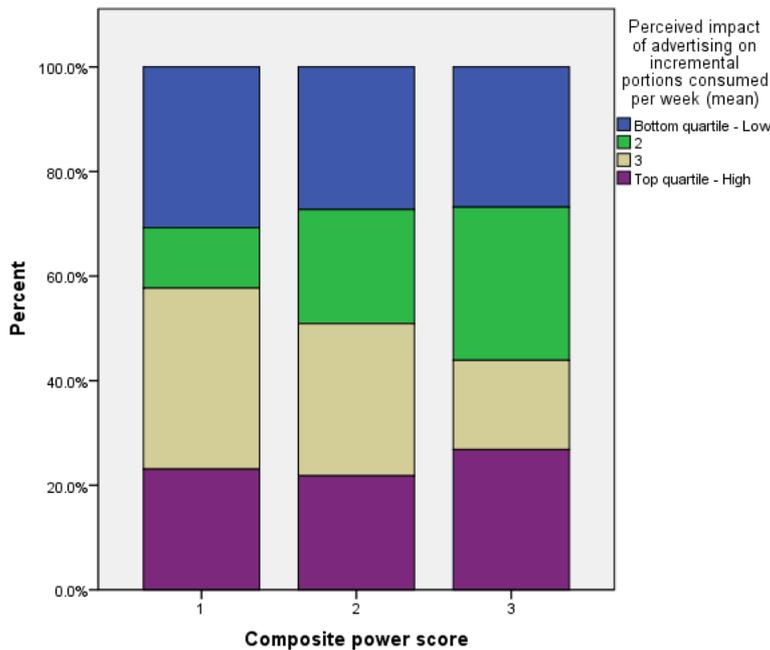
Fig 26: Perceived impact of marketing on children’s consumption, ranked by size of the stakeholder’s organisation’s press department (number of staff).



Composite power scores

Power scores were analysed with respect to the stakeholder’s quantified estimates of the impact on children’s actual consumption, in terms of additional food purchases per week. Resulting estimates were divided into quartiles from the lowest 25% to the highest 25%. The graph shows a fairly clear trend: those stakeholders from lower-power organisations are more likely to give higher estimates and less likely to give low estimates, compared with stakeholders from higher-power organisations (Figure 27, below).

Fig 27: Perceived impact of marketing (quartiles) on consumption by power score of stakeholder.

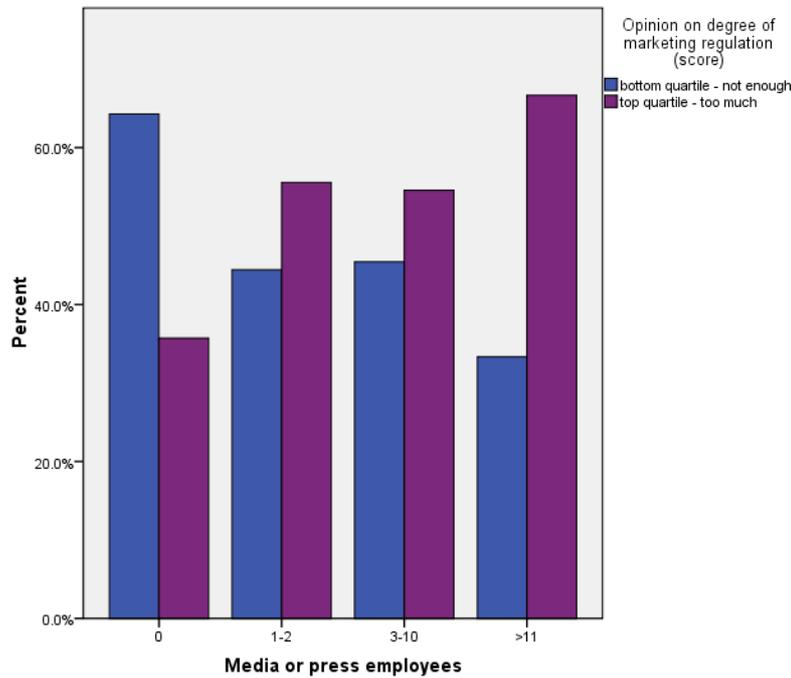


(c) Power and view on need for stronger regulatory controls

A further analysis was undertaken to assess the potential relationship between the size of an organisation’s press department in relation to the stakeholder’s views on whether current marketing restrictions were adequate, too weak or too strong. Figure 28 below shows the stakeholders’ quantified estimate of the adequacy of current marketing restrictions ranked against the size of the stakeholder’s organisation’s press department (numbers of staff). For clarity, only those stakeholders who stated that current marketing restrictions were strongly insufficient or strongly more than sufficient are shown (the lowest and highest 25% of scores).

As the figure shows, stakeholders stating that current restrictions were insufficient were most commonly found in organisations with no press staff, while stakeholders stating that current restrictions were more than sufficient were most commonly found in organisations with more than ten staff. Again, the intermediate size organisations showed consistent intermediate values, indicating a ‘dose-response’ relationship: the larger the organisation’s press department, the more likely the stakeholder was to state that current marketing regulations were more than sufficient.

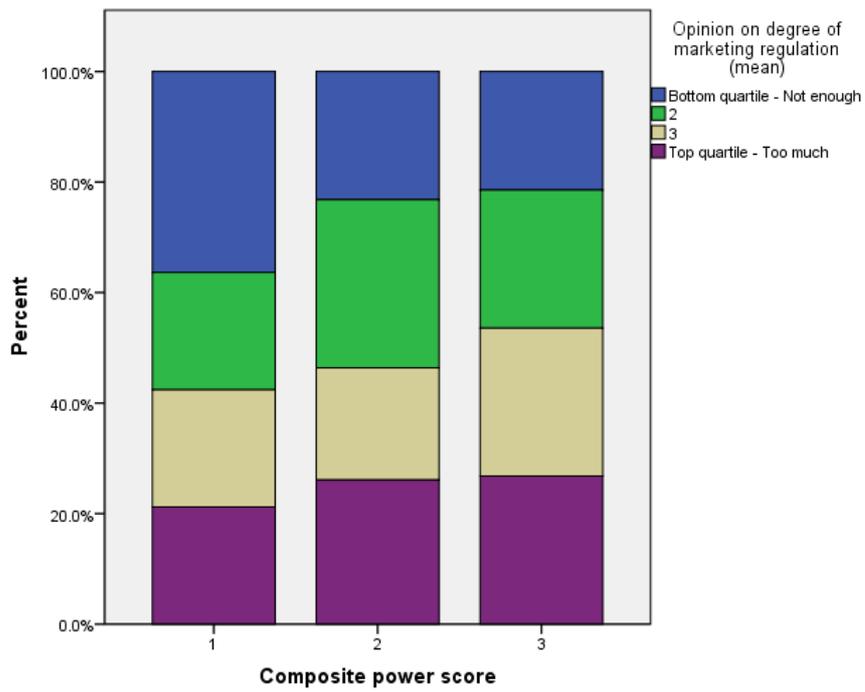
Fig 28: Stakeholder assessment of the adequacy of current marketing restrictions, ranked by size of the stakeholder’s organisation’s press department (number of staff).



Composite power scores

Power scores were analysed with respect to the stakeholder’s views on the degree of marketing regulation applying, ranked from those who want more (currently ‘not enough’) to those who want less divided (currently ‘too much’) and divided into quartiles. The graph shows a clear trend: those stakeholders from lower-power organisations are more likely to state that there is currently not enough control, and less likely to say that there is currently too much control, compared with stakeholders from higher-power organisations (Figure 29, below).

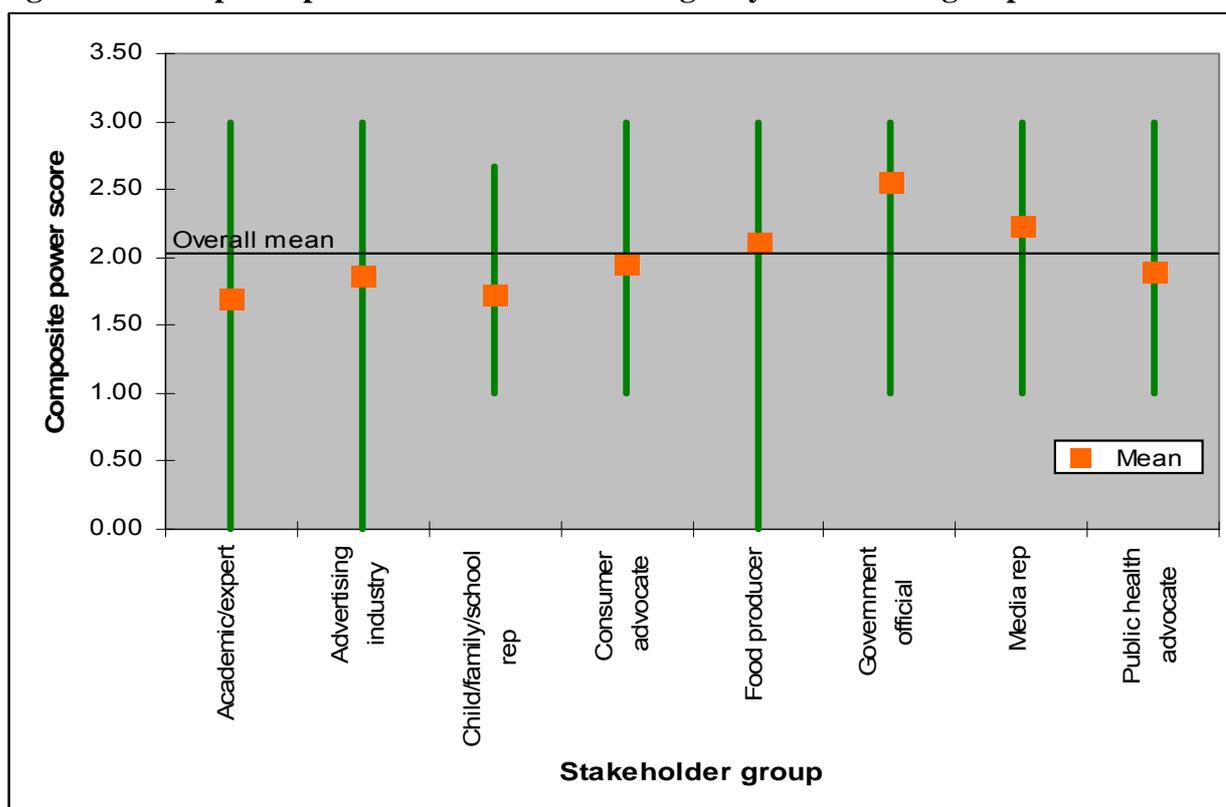
Figure 29: Stakeholder assessment of the adequacy of current marketing restrictions, ranked by size of the stakeholder's by power score.



Interaction between power and stakeholder interest

It might be assumed that power and interest are closely allied, with the power scores interacting strongly with the interest category. However, the evidence does not support this: as shown in Figure 30 (below) the mean power score is highest for government officials (perhaps not surprisingly) followed by media representatives. The variation in average composite power score is modest, with the interest groups' mean values all lying within a range of 1.7-2.6 (or 1.7-2.2 excluding the government officials) and with a comparably wide range of scores within each interest group.

Figure 30: Composite power score means and ranges by stakeholder group



The lack of a clear interaction may be interpreted as suggesting that power and interest are operating independently, and that more powerful organisations within any given interest group may tend towards common perspectives, compared with less powerful organisations. These issues need further more extensive examination, using a larger dataset.

Discussion

This investigation attempted to throw light on the process of health impact assessment by investigating two specific hypotheses:

- (i) that stakeholders coming from organisations with different interests demonstrate differences in their quantified impact estimates;
- (ii) that stakeholders coming from organisations with different levels of power demonstrate differences in their quantified impact estimates.

In both cases there is evidence that these hypotheses are supported. In the first case, there are differences between stakeholder categories in their evaluation of the likely impact on children's food choices. In particular, sharp and consistent distinctions were found between stakeholders whose organisations were rated as having interests primarily concerned with promoting and defending commercial freedom and marketing activities, in contrast with those stakeholders whose organisations were rated as primarily interested in promoting and defending the perceived health and wellbeing of children and parents. **The quantified estimates of the size of the effect on food choices following exposure to a range of marketing methods promoting specified food products were consistently lower among stakeholders from market-oriented organisations than from child-oriented organisations.**

However, the quantified estimates of the size of the effect on consumption levels of foods resulting from exposure to a range of marketing methods promoting specified food products were more nuanced, with consistently low estimates among stakeholders from advertising organisations, but high estimates from several food producing organisations, and from media organisations.

This may reflect the arguments between different interest groups on whether advertising has the effect of raising total market sales, or is directed at raising only the share of sales for the advertised brand. The latter view is often put forward by the advertising industry, though less often by the food companies, where there is some belief that advertising 'grows the market' for all companies while also assisting in increasing market share for the advertised company.

In the second case, relating to the dimension defined as 'power' and based on indicators such as organisation size and turnover and press department size and budget, there was also a body of evidence suggesting a relationship between the power of an organisation and the responses given by stakeholders working in those organisations. **Higher levels of power were associated with a higher likelihood that the stakeholder would give a low estimate of the impact of marketing on children's choices or on children's consumption of the types of foods being promoted. Conversely, lower levels of organisational power were associated with a higher likelihood that the stakeholder would give high estimates of the impact on children's choices and consumption.**

It might be proposed that organisations with low estimates of the impact of exposure to marketing on children's food choices and consumptions levels would also agree with the view that it is not necessary to introduce tougher restrictions on marketing to children, and that this would also be associated with a high score on the power scale. This proposition is supported by the results in

this study, which found that **the power of an organisation is inversely related to their rating of the current level of control on marketing to children. Those organisations with higher power and influence may be more likely to use their position to resist stronger controls, while organisations with low levels of power may be more likely to support stronger controls.** By definition, less powerful organisations do not have the institutional resources to influence policy-makers which more powerful organisations can command, and as a result there is a potentially serious imbalance in the democratic process.

Strengths and limitations

Large number of stakeholders throughout Europe have been interviewed on a topic which has generated a lot of debate in Europe and worldwide. This report provides a valuable picture of the situation today and can be used as a basis for further policy initiatives in this area.

A number of caveats need to be considered. Firstly, the categorisation of stakeholder organisations is not a perfect science. Government agencies which are devoted to defending the interests of children, such as a Children's Ombudsman, could be categorised as a government agency or as a child-representative agency. Food companies which market themselves as being primarily concerned with food quality, such as 'Slow Food' or organic food companies, may not see themselves as being in the same category as those marketing high quantities of mass-produced foods, such as a multinational fast food chain.

Further caveats need to be expressed around the definition of 'power'. The information on the various component indicators: size and turnover of the organisation and its press department, for example, were made by the stakeholder at the time of the interview. No additional research was undertaken to verify or qualify the information provided by the interviewee. It is possible that the information provided was significantly adrift from reality, or that the interviewee interpreted the question as referring only to their department rather than to the entire organisation, or that there was some other cause for distortion. These possibilities would introduce some inaccuracy, but presumably this would be random with respect to the hypothesis being tested. There does not appear to be a reason why such inaccuracies would significantly change the direction of the relationships found.

The dimensions of power and interest are not identical and may not overlap significantly: there is some evidence that the scores for power vary widely within each stakeholder interest group. This implies that even within an interest group, the more powerful organisations may resist increased controls on marketing to children than less powerful organisations.

Concluding remarks

The analyses conducted for the PolMark project permitted two hypotheses to be tested which have an implication for the use of stakeholders when conducting health impact assessments, especially if the health impact assessments ask stakeholders to make quantitative estimates of the effects of risk exposure on health or health behaviour.

In the first case, it was found that the category of stakeholder was associated with the size of the estimates of the impact of potential risk exposure on health behaviour. Stakeholders working for organisations whose interests were likely to be in a particular direction (in the present case, in favour of unrestricted marketing) were likely to make lower quantitative estimates of the effects

of the potential risk on health behaviour, while those with interests in a competing direction (in this case in favour of protecting children from such marketing) were likely to make higher quantitative estimates of the effects of the potential risk on health behaviour.

In the second case, it was found that various indicators of the 'power' of an organisation (for example, its size and media capacity) had an effect on the quantitative estimates made by stakeholders. Those stakeholders from more powerful organisations tended to give lower estimates of the effect of risk exposure on health behaviour, while stakeholders from less powerful organisations tended to give higher estimates. It was also found that stakeholders from organisations with less power tended to perceive current regulations on risk exposure as being weaker than needed while stakeholders from more powerful organisations tended to perceive current levels of regulation as adequate.

The present study provides evidence to support the argument that more powerful organisations and particular interest groups are likely to make lower estimates of the effects of potential risk, and to resist controls on risk. By virtue of this power, these organisations have the ability to influence policy-making, and policy makers should be aware of the potential bias expressed by stakeholders on this issue.