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IGAG Report 1/2011



## IGAG Report 1/2011 Evaluation of prevention campaigns

Analyse the parts and see the whole better:  
Measuring the effects of campaigns of accident insurers

IAG Report 1/2011

## **Evaluation of prevention campaigns**

Analyse the parts and see the whole better:  
Measuring the effects of campaigns of accident insurers

IAG, SUVA, AUVA

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# Abstract

## Evaluation of Preventive Campaigns

Preventive campaigns are effective campaigns of a limited duration for information and communication of specific goals. They are increasingly being used in accident insurance in Europe to educate specific target groups about subjects relevant to prevention and health and to bring about a change in awareness and behaviour with respect to these goals.

Preventive campaigns are usually financed with public funds, which is why clients and donors, such as the state, self-governing bodies or the private sector are increasingly demanding proof of the effectiveness of these measures.

How can this proof of the effectiveness of preventive campaigns in accident insurance be provided? The IAG Report, drawn up jointly by the Schweizerische Unfallversicherungsanstalt (SUVA) [Swiss Accident Insurance Institute], the Allgemeine Unfall-versicherungsanstalt [General Accident Insurance Institute] in Austria (AUVA) and the Institut Arbeit und Gesundheit der

Deutschen Gesetzlichen Unfallversicherung (IAG) [Work and Health Institute of German Statutory Accident Insurance] deals with this question.

The Report contains a levels model for planning and implementing the evaluation of preventive campaigns, based on the experience of the individual institutions. This model is substantiated by the example of the evaluations carried out in the individual countries. Furthermore, it provides evaluators with concrete aids in the form of checklists for planning and implementing the evaluation as well as tips for developing and using instruments.

This brochure is primarily aimed at evaluators of preventive campaigns. They should be able to use the brochure as a reference and an aid in the various phases of evaluation of a preventive campaign. In addition, clients and those active in campaigns can learn from the brochure which aspects are key for a high-quality evaluation.

# Kurzfassung

## Evaluation von Präventionskampagnen

Präventionskampagnen sind öffentlichkeitswirksame, zeitlich begrenzte Aktionen zur Information und Kommunikation hinsichtlich bestimmter Ziele. Sie werden in der Unfallversicherung in Europa verstärkt eingesetzt, um über präventions- und gesundheitsrelevante Themen bestimmte Zielgruppen aufzuklären und hinsichtlich dieser Ziele eine Bewusstseins- und Verhaltensänderung herbeizuführen.

Präventionskampagnen werden in der Regel aus öffentlichen Mitteln finanziert, daher fordern Auftrag- und Geldgeber wie Staat, Selbstverwaltung oder Privatwirtschaft immer häufiger den Nachweis der Wirksamkeit dieser Bemühungen ein.

Wie kann dieser Nachweis der Wirksamkeit von Präventionskampagnen in der Unfallversicherung erbracht werden? Dieser Frage widmet sich der IAG-Report, der von der Schweizerischen Unfallversicherungsanstalt (SUVA), der Allgemeinen Unfallversicherungsanstalt in Österreich (AUVA) sowie dem Institut Arbeit und Gesundheit der Deutschen Gesetzlichen Unfallversicherung (IAG) gemeinsam erstellt wurde.

Im Report wird ein Ebenenmodell zur Planung und Durchführung der Evaluation von Präventionskampagnen aufgestellt, basierend auf den Erfahrungen der einzelnen Institutionen. Dieses Modell wird am Beispiel von durchgeführten Evaluationen in den einzelnen Ländern untermauert. Darüber hinaus werden für Evaluatoren konkrete Handlungshilfen in Form von Checklisten für die Planung und Durchführung der Evaluation als auch Hinweise für die Entwicklung und den Einsatz von Instrumenten bereitgestellt.

Diese Broschüre richtet sich in erster Linie an Evaluatoren von Präventionskampagnen. Sie sollen in den verschiedenen Phasen der Evaluation einer Präventionskampagne die Broschüre als Referenz und Handlungshilfe nutzen können. Zusätzlich können auch Auftraggeber sowie Kampagnenakteure durch die Broschüre erfahren, welche Aspekte für eine qualitativ hochwertige Evaluation bezeichnend sind.

# Résumé

## Évaluation des campagnes de prévention

Les campagnes de prévention sont des actions à large résonance auprès du public limitées dans le temps, à visée d'information et de communication avec des objectifs définis. En Europe, l'assurance-accident s'appuie largement sur cette forme de communication afin de sensibiliser des groupes-cibles déterminés à des thématiques autour de la santé et de la prévention et de susciter une évolution des mentalités et des comportements.

Les campagnes de prévention sont généralement financées par des fonds publics, c'est pourquoi les donneurs d'ordre et bailleurs de fonds tels que l'État, administrations autonomes ou secteur privé requièrent de plus en plus des éléments probants quant à l'efficacité de ces investissements.

Comment apporter la preuve de l'efficacité des campagnes de prévention dans le cadre de l'assurance-accident ? C'est à cette question que se consacre le rapport de l'IAG, rédigé en commun par la caisse nationale suisse d'assurance en cas d'accident (SUVA), la caisse générale d'assurance-accident autrichienne (AUVA) et l'Institut

du travail et de la santé de l'assurance-accident allemande (IAG).

Le rapport développe un modèle par niveau pour la planification et la mise en œuvre de l'évaluation des campagnes de prévention, s'appuyant sur les expériences des différentes institutions. Ce modèle est étayé par l'exemple des appréciations effectuées dans les différents pays. De plus, des outils pratiques sont mis à la disposition des évaluateurs pour la planification et la réalisation de l'évaluation, ainsi que des instructions pour le développement et le déploiement d'instruments.

Cette brochure s'adresse en premier lieu aux évaluateurs de campagnes de prévention. Ils doivent pouvoir s'appuyer sur cette documentation en guise de référence et d'outil pratique au fil des différentes phases de l'évaluation d'une campagne de prévention. Par ailleurs, cette documentation fait ressortir, tant pour tant les donneurs d'ordre que pour les acteurs de campagne, les aspects déterminants permettant de fournir une évaluation qualitativement supérieure.

# Resumen

## Evaluación de campañas de prevención

Las campañas de prevención son acciones temporales de gran visibilidad, destinadas a informar y comunicar sobre determinados objetivos. Son utilizadas de forma intensa por las compañías de seguros de accidentes en Europa, para ampliar el conocimiento de ciertos grupos de destinatarios sobre temas relevantes en términos de prevención y salud y para inducir a un cambio de conciencia y conducta con respecto a dichos objetivos.

Por regla general, las campañas de prevención son financiadas con fondos públicos, motivo por el cual las entidades de contratación y financiación, es decir, el gobierno, las autonomías o el sector privado, exigen, cada vez más, que se acredite la eficacia de tales medidas.

¿Cómo, pues, puede acreditarse la eficacia de las campañas de prevención en el sistema de seguros de accidentes? La respuesta a esta pregunta se desprende del «IAG-Report», un informe elaborado conjuntamente por el Instituto nacional suizo de seguros de accidentes (SUVA), el Instituto general de seguros de accidentes de Austria

(AUVA) y el Instituto de trabajo y salud (IAG) de la Asociación alemana de seguros de accidentes (DGUV).

El informe, basado en las experiencias adquiridas por las mencionadas instituciones, presenta un modelo de varios niveles para la planificación y realización de evaluaciones de campañas de prevención y está respaldado por ejemplos de evaluaciones realizadas en los diferentes países. Además, el informe pone al alcance de los evaluadores una serie de ayudas prácticas en forma de listas de chequeo para la planificación y realización de evaluaciones, así como consejos para el desarrollo y empleo de los instrumentos necesarios para ello.

Este folleto se dirige, principalmente, a los evaluadores de campañas de prevención, para que les sirva de referencia y ayuda práctica en las diferentes fases de evaluación de una campaña de prevención. Adicionalmente, proporciona a los responsables de contratación y a los operadores de las campañas información sobre los aspectos importantes a tener en cuenta para poder llevar a cabo evaluaciones de alta calidad.

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# Foreword

In recent years there has been a marked increase in the importance of campaigns which promote occupational safety and health. To make effective and efficient use of limited financial and human resources it is vital that these campaigns be evaluated. An evaluation serves to:

- reveal which campaign measures are effective;
- develop new campaign measures or improve existing ones;
- assess intended and unintended effects of campaign measures and alternative tools;
- support learning processes for all involved (campaign organisers and target groups).
- obtain information that can be used to adjust the campaign;
- provide a rationale for individual campaign measures for those responsible;
- guide campaign measures based on an appropriate cost-benefit ratio; and
- inform committees/panels and the general public about the status of the campaign measures.

Unfortunately, up until now, only a few campaigns have been subjected to systematic evaluation and this applies internationally. This is due to their complex structure which consists of a multitude of preventive mechanisms that interact with one another.

These include consultation, monitoring, communication, training and even incentive programmes. This is further compounded by a lack of understanding of evaluation.

The aim of this document is to provide help with the fundamentals of evaluation methodology so that conclusions can be drawn regarding the effectiveness and efficiency of prevention campaigns. In addition, it will be shown how evaluation can be used as a control tool for these campaigns.

The aim of this document is to reinforce the importance of prevention campaigns in occupational safety and health. It is a joint project of the Austrian Workers' Compensation Board (AUVA), the Swiss National Accident Insurance Fund (SUVA) and the German Social Accident Insurance (DGUV). On behalf of all those who will use this brochure, I would like to thank all the authors for their hard work. To our readers, I wish you much success with evaluating your next OSH campaign.

Dresden, March 2010

Dr. Thomas Kohstall



# 1 Introduction

This document has been written primarily for those responsible for evaluating prevention campaigns. The aim is for them to use this report as a reference guide during the various phases of evaluating their campaign. It is also envisaged that principal stakeholders can use this document to learn which elements of an evaluation are important to ensure a high standard of quality. The report uses a multitiered model for planning and conducting an evaluation of prevention campaigns. This model is based on:

- existing research literature on evaluating public relation (PR) strategies (DPRG, 2001; Besson, 2008);
- the evaluation of communication campaigns in the public health sector (National Cancer Institute, 1992; Rice & Atkin, 1989; McGrath, 1989; Coffman, 2002); and
- the authors' own experience.

In Chapter 2, *Embedding evaluation into prevention campaigns*, a definition of prevention campaigns in terms of the statutory accident insurance system is given. In addition, campaigns commonly used in Switzerland, Austria and Germany are described. Finally, important preliminary work is discussed which is necessary for conducting meaningful, effective and useful prevention campaigns.

The proposed tiers are:

- concept evaluation (formative)
- campaign presence (scope of the campaign activities/measures)
- media presence (media resonance)
- level of awareness (awareness, acceptance, assessment)
- change (changes in behaviour and conditions)
- success in economic terms (effects on businesses)
- quality of the campaign's structure and processes (process evaluation)

In addition to these tiers, the report also recommends a strategy for post-evaluation work. This includes such things as knowledge management of the results as well as providing feedback to all relevant stakeholders. This content is covered in Chapter 3: *Tiered model for evaluating campaigns*. Chapter 4 is concerned with the *information management of the results*.

In Chapter 5, evaluators are provided with a guideline for evaluating campaigns which assists with customising evaluations for their own prevention campaigns. By following Chapter 5 *step-by-step*, you can develop your own evaluation concept.

Chapter 6, *Tips and Tricks*, provides tips for designing prevention campaigns and Chapter 7, *Checklists and templates* has advice for planning and conducting evaluations. Evalu

ators are also provided with suggestions for further reading. Finally, in Chapter 8, *Country examples: Germany, Switzerland, Austria*, the tiered-model of evaluation is looked at with the use of examples of evaluations conducted by different institutions in Germany, Switzerland and Austria.

## 2 Embedding evaluation into prevention campaigns

### 2.1 Definition of prevention campaigns

Over the last few years, the statutory accident insurance agencies in Europe have introduced a number of campaigns to prevent accidents and illnesses in addition to their traditional preventive measures. The advantage of these campaigns is that they unify various forms of prevention into a single new instrument. Information and communication, education, research and development, different incentive schemes as well as counselling are brought together into a coordinated package of measures using a variety of means (cf. Eichendorf & Pfeiffer, 2007). The campaigns are run over a set period of time and either in a specific sequence or cross-linked. The overall aim is to ensure that the goals set for one or more target groups are achieved within a clearly defined budget and amount of effort.

The prevention campaigns undertaken by the statutory accident insurance agencies in Europe belong to the category of social communication campaigns. According to Rogers and Storey (1987; from McGrath), these social communication campaigns are characterized by the following:

- They have a specific objective
- They are aimed at the general public
- They are conducted within a set period of time
- They use both personal and mass media forms of communication

Social communication campaigns, unlike advertising campaigns, do not have a single product at the core of their message. Generally speaking, they are aimed at either encouraging *appropriate* health and safety behaviour in the target groups or discouraging *inappropriate* health and safety behaviour. However, the resulting change processes cannot be measured just in terms of increased sales. Due to the complexity of the messages being conveyed and the intended effect, they are subject to much longer “incubation periods” than would be the case when buying a product. The campaigns used in Switzerland, Austria and Germany vary in certain aspects and these are described below.

#### Switzerland:

In Switzerland, each body responsible for coordinating safety, both in and out of the workplace, conducts their own stand-alone campaigns. SUVA organizes campaigns and other activities centred on specific topics and in selected fields. By doing this, they can focus their energy and resources into areas where the risks and associated costs of an accident are the highest.



## 2 Embedding evaluation...

To ensure the success of these activities and campaigns, it is pivotal that the affected companies and associations get actively involved – even during the preparatory phase of the campaign. All of the upcoming campaigns and activities are published in an annual brochure. The duration of the individual prevention programmes and campaigns is a minimum of two years. Experience has shown that businesses need at least one year to plan, budget for and organize a campaign.

Activities and campaigns now form a whole packet of measures and offers: for example, consultation, inspections, helpful materials for raising awareness, and assistance for companies with large campaigns and TV commercials.

SUVA has been conducting evaluations of larger campaigns since 1987. Target group surveys, accident analysis and other indicators show whether goals have been achieved. The evaluations also make it possible to adjust campaigns as they are running, for example, in the situation where it has been determined that awareness in an important target group has not been increased.

Information gained from the evaluations can be used for future campaigns and activities.

### **Austria:**

Prevention campaigns in Austria are differentiated based on whether the topic is suitable for raising awareness in the general public or not.

#### 1. *Campaign topics and core messages suitable for raising awareness in the general public:*

An example of this is the “Baba und fall net” campaign for the prevention of accidents due to tripping and falling which is described later in this brochure. Accidents from falling or tripping can happen to anyone – also outside of insured work hours. Thus, the target group of the campaign is very large. Furthermore, the idea of reducing the number of accidents by using strategies that build awareness is very promising. In order to produce a lasting awareness, this type of campaign needs time to have an effect and should run for about two years in a series of waves. In this case, AUVA decided on a mass media campaign using billboards, TV and radio. The costs for this type of campaign are relatively high and so naturally there is greater interest in a professional evaluation. Fortunately, there is a good selection of well-established evaluation tools that can be used to evaluate mass media campaigns.

#### 2. *Campaign topics and core messages not suitable for raising awareness in the general public:*

An example of this is the “Safe Maintenance” campaign which is currently running. The focus here is clearly on businesses and especially the people who are responsible for maintenance. In SMEs, this person is often the company owner. In larger companies, the people being targeted are maintenance employees and

their managers. The core focus is on technical and organisational measures and less on individual awareness. The target group is significantly smaller. In this case, the campaign concentrates on directly addressing the target group and providing them with information. The idea is to convey technical information to an audience that already has existing know-how.

### Germany:

There are two types of campaigns in Germany:

1. One of the providers of employers' liability insurance runs their own prevention campaign aimed at specific industries. This is done using both mass media and direct communication with the target group which is usually the people insured and the member companies within a specific industry. These campaigns usually run for one year.
2. All of the providers of statutory insurance conduct a joint prevention campaign focused on a particular topic or area. The campaign format consists of a mass-media umbrella campaign at the association level together with various support campaigns from each of the participating institutions that are aimed at specific target groups. Other public and private cooperation partners are included who have an interest in the topic due to their statutory accident insurance. The target groups are the insured and member companies of all participating stakeholders. This way, different industries can be covered. The

duration of these prevention campaigns is set for two years.

### 2.2 Why should prevention campaigns be evaluated?

Due to the fact that prevention campaigns are usually financed from community funds, the backers of these campaigns such as the government, administration boards or private business are increasingly demanding evidence that the effort invested has been effective. However, it is very rare to come across situations where effectiveness has been investigated in statutory accident insurance. There are a number of reasons for this: Firstly, there is a lack of time and financial resources and secondly, prevention campaigns are complex in nature and finding appropriate ways of evaluating them is a methodological challenge.

The evaluation can answer the question of how well the campaign has reached the target groups. It can also show what effects have resulted and even which are particularly good and which are not so good. Furthermore, an evaluation can help to identify areas of improvement for future campaigns. It is well known, that prevention campaigns have an effect at various levels and as a result they are particularly complex. More precisely: They use a variety of preventive techniques (see 2.1. *Definition of prevention campaigns*), they have multiple goals and they target different groups. Therefore, it is important to combine formative and summative evaluation approaches when evaluating effectiveness. As such, this document presents a comprehensive evaluation

model based on eight different tiers. This has been derived from the research literature on evaluating public relation strategies and the evaluation of communication campaigns in the public health sector.

### 2.3 Deciding on the campaign topic

The core question when determining the campaign topic is: How can you establish whether a topic is relevant for a prevention campaign? There are two points which should definitely be taken into consideration when determining a campaign's topic:

- The topic should be based on different data and statistics which have been obtained over the course of a year. This information is well-suited for identifying topics which are relevant for a prevention campaign. Generally speaking this information is used to retrospectively establish the changes which have occurred over a fixed period of time in relation to the number of accidents, the development of workplace illnesses and also costs and benefits related to rehabilitation. These types of statistics are available from the various statutory insurance agencies in Europe and include information such as the amount of registered accidents, the amount of work-related illnesses, and the amount of rehabilitation benefits.
- As part of determining the campaign topic, it is important to get buy-in from both the stakeholders and those impacted by the campaign. The decision for or against a campaign can be facilitated by using a method that is transparent and easy to

understand; this avoids unsubstantiated “gut decisions”. For example, this could be achieved by having a panel of experts (either external or internal) evaluate the importance and priority of the focus areas which were identified from the statistics.

#### **FYI:**

In Chapter 5.1, *Method for developing prevention goals*, there is a description of such a process which combines statistical data with expert analysis in order to determine a campaign topic.

### 2.4 Concept of prevention campaigns

Prevention campaigns should be effective, beneficial and measurable. In order for all three of these to be achieved, there needs to be some preliminary considerations. Based on the research literature and from our own experience (see Chapter 6: *Tips and tricks*) there are a number of recommendations which should be considered when drafting prevention campaigns. It is worth emphasizing that long-term behavioural change cannot be achieved by spreading the prevention message through mass media alone. It is vital that an effective campaign be used for direct intervention in the target group. Furthermore, there should be concrete ways of solving problems so that positive results are immediately experienced when appropriate safety behaviour is shown. This can be done using *Risk Communication Models* which, depending on the willingness of the campaign organisers and the actual level of participation of the target groups, allow conclusions to be drawn about the effectiveness of the measures (see Figure 1,

Brown & Campbell, 1991). As part of this, the target group should be actively involved in the planning and implementation of safety measures. It has been shown that a strong *willingness* to get the target groups involved

(power sharing) by the campaign organisers and a high level of *involvement* (community interaction) contribute to a more effective safety measure.

Figure 1:  
Risk Communication Models (Brown & Campbell, 1991)

		Community Interaction	
		Low	High
Power Sharing	Low	“Information“ Leaflets Displays CSAs	“Consultation“ Public Meetings Planning Inquiries
	High	“Canvassing“ Surveys Focus Groups Interviews	“Conversation“ Searching Planning Cells

The following evaluation assumes that statements concerning the (long-term) effectiveness and the benefit of prevention campaigns can only be made if the safety measures being implemented are based on standards of quality that are pre-determined and evidence-based. In particular these include:

- clearly defined goals
- systematic analysis and description of topics and target groups
- substantiated measures
- quality standards and indicators
- deriving precise control hypotheses
- documentation and efficiency tests

This information should be properly documented in a detailed plan for each of the campaigns (see Chapter 6.2, *Outline of functional and communication plan*). At the same time as developing the plan, it is a good idea to advise campaign managers to assess the measurability of their goals. This assessment helps them to put their expectations of the campaign into concrete terms and creates a solid foundation for planning campaign measures. This also makes it possible to check the campaign’s effectiveness.

**FYI:**

- You can find a list of tips for designing prevention campaigns from both the literature and our own experience in Chapter 6.1.
- You can find an example of outlining a specialist communication plan in 6.2.

## 2 Embedding evaluation...

- How to guarantee the measurability of a prevention campaign can be found in 5.2 *Guide to conducting a prevention campaign evaluation*.

### 2.5 Establishing an effect model for prevention campaigns

Generally speaking, well-known social-psychological models and models of cognitive information processing are used to describe the effects of a prevention campaign. When adjusted to the context of a campaign, these models make theoretical assumptions regarding how behavioural changes occur in the groups targeted by the campaign (for an overview see Stroebe, Hewstone & Stephenson, 1996; Herkner, 2001; Felser, 2001). A concept for evaluating the effectiveness of a campaign focuses on the effect levels of such models. It is possible to derive hypotheses about the effects of a prevention campaign based on the goals formulated in the plan which can be investigated by an evaluation.

Examples of these models are:

- Phase model of campaign effectiveness (based on McGuire & Rogers, in: Singhal & Rogers, 1999)
- Extended parallel process model (EPPM) (Witte, 1992)
- Elaboration-likelihood model (Petty & Cacioppo, 1986)
- Information processing model of Persuasion (McGuire, 1989)
- Theory of planned behaviour (Ajzen, 1989)
- Transtheoretical model (Prochaska & DiClemente, 1983)

#### ***FYI:***

A highly recommended effect model for prevention campaigns is the Phase Model of Campaign Effect by McGuire & Rogers (in: Singhal & Rogers, 1999). This is described in Chapter 6.3.

# 3 Tiered-model for evaluating campaigns

Prevention campaigns often consist of a combination of different measures depending on the areas of activity, the goals or target groups as well as the core messages. On account of this complexity, it is recommended to use an evaluation which looks at different tiers. The proposed tiered model for evaluating the effectiveness of prevention campaigns is based on comprehensive literature research from English-speaking countries on the evaluation of prevention campaigns in public health (cf. National Cancer Institute, 1992; Rice & Atkin, 1989; McGrath, 1989; Coffman, 2002) as well as approaches and methods of evaluating public relation strategies (cf. DPRG, 2001; Besson, 2008). The tiers for evaluating campaigns as identified by this method are described as follows:

1. The first tier is **concept evaluation**. This evaluates how the campaign topic is currently viewed by the public and whether the target group has an opinion about it. Also considered, is the question of whether the measures reflect the campaign goals and whether the campaign can be implemented in such a way that the message will get across to the target groups.
2. The **campaign presence** tier documents the extent to which the campaign measures have reached the general public. Questions here are: How, where, when, by whom, to what extent and at what cost were the individual activities and measures of the campaign carried out?
3. The **media presence** tier uses media impact analysis to assess how often the campaign is mentioned in print, online, radio and TV media. The next step is to evaluate these in terms of quality and quantity.
4. The next tier looks at the **awareness** of the target groups. It focuses on the acceptance or rejection of the campaign – the subjective assessment. Possible questions for this tier are: Is the campaign memorable? Does it draw attention? Is it easy to understand? Do people associate with it?
5. The **change in behaviour/conditions** tier takes a more in-depth look at the question of whether the campaign has caused a change in knowledge, attitude or behaviour in the target group. Also included is whether the organiser's image has improved. Changes at this level are subject to longer-term processes than at the awareness tier.
6. The **workplace effects** tier examines whether the campaign activities and measures have had an impact on specific key indicators in the workplace. This looks at which workplace effects are dependent on the campaign and how well it per-

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formed. It is also possible to examine the way that processes differ between “good” and “bad” workplaces.

7. The **structure and processes quality** tier looks at the campaign structure, internal processes, project work and what needs to be optimised for the current and future campaigns. This is assessed by the campaign organisers themselves.

The results from one evaluation tier form the basis for the evaluation at the next tier (cf. DPRG, 2001). At each individual tier it is recommended to use certain methodological approaches. However, these can vary depending on the individual measures to be evaluated and should be chosen by the evaluator depending on the repertoire of methods that they have. In order to investigate the psychological effect mechanisms underlying the campaign, the effect model for a campaign is cross-referenced with the evaluation tiers. The following chapters describe evaluation approaches which can also be applied to other campaigns.

#### 3.1 Concept Evaluation (formative)

Concept evaluations are done prior to actually commencing a campaign. This means that concepts related to the subject and to communication can be adjusted as things progress. Communication and evaluation experts highly recommend not to neglect this evaluation as it provides the foundation for the effectiveness of the campaign as a whole. It can safely be assumed, that the campaign will fail to reach its goals if the

messages and measures are not tailored to the target group/s.

#### Use

Concept evaluations are used to test individual campaign elements in terms of their feasibility. They make it possible to develop optimisation options which can be used as the basis for highly targeted communication in the campaign. They also ensure consistency between goals, target groups, messages and measures in a campaign as well as the measurability of the goals formulated in the concept. The types of questions that can be answered with this include:

- How is the campaign topic currently viewed by the general public?
- What is the target group’s opinion of the topic?
- Do the measures reflect the goals of the campaign?
- Has the campaign been implemented in a way that the message/s are understood by the target group?

#### Methods

There are three possibilities for performing a concept evaluation: Pre-production study, pre-test (see Atkin & Freimuth, 1989 from McGrath, 1991) and consistency check (Besson, 2008). These are described in more detail below:

#### Pre-production study

Prior to the campaign, the knowledge, awareness and behaviour of the target groups are studied in detail with the help of surveys, focus groups or other qualitative methods. This makes it possible to confirm the validity of the campaign contents and to develop the campaign measures.

#### Pre-test of campaign elements

In this phase, the campaign elements are tested in terms of whether the campaign logo generates attention, whether the topic is of interest to the target groups and whether the core message makes them aware that the topic impacts them. It is important to research in the pre-test phase whether there are other campaigns with similar messages, slogans or logos. Based on this information, the appearance of the campaign can be refined and customized.

#### Consistency check

A check list can be used to test the consistency and quality of the campaign concept. Specifically this involves putting together a panel of experts consisting of evaluators and campaign planners. They assess if the campaign topic is well-founded, if the goals are measurable, if the messages are well-targeted and if the goals and target groups can be reached through the measures. The time frame for reaching the target groups must also be realistically set and consideration must be given to whether there are enough funds and resources.

#### Implementation

The pre-production study can be used continually throughout the campaign, every time a new measure is introduced or planned. The other two activities described above – pre-test and consistency check – are usually carried out before the campaign starts.

#### *FYI:*

Checklists for prevention campaigns that we highly recommend can be found in 7.2. *Checklists and resources on the Internet*

### 3.2 Campaign presence

Campaign presence is determined by listing which activities or measures can be carried out where, when and by whom. The scope of the activities should also be decided with the campaign organisers as a criterion for the evaluation. The extent of the planned measures and/or efforts on the part of the campaign leaders should also be decided. This ensures that the target group is comprehensively addressed.

#### Use

Evaluation of campaign measures can be used for the following:

- Overview of the campaign measures
- Possibility to provide information to committees or the general public
- A pool of ideas for designing further measures
- Potential material for press releases in the form of best-practice examples



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- Assistance for planning measures and summarising activities within the organisation running the campaign

This evaluation tier can be used to answer the following questions:

- How much **presence** does the campaign have? Which measures belong to the campaign?
- Which **target groups** are being addressed?
- How can the measures be put into the categories of **activity, media or advertising** and related sub-categories?
- What is the **coverage** of the measures?

#### Methods

Campaign measures can be recorded through systematic documentation done by the campaign organisers. The following main criteria should be taken into consideration:

- Title of the measure
- Type of measure (e.g. activity, media, advertising)
- Number of similar activities carried out
- Coverage

Additional information could include: most common target groups, cooperation partners, most common location of measures, additional remarks, commentary and tips.

#### Implementation

Campaign presence should be constantly assessed during the campaign. In the situation where more than one organisation is responsible for managing the campaign, then all

those involved should document information in a uniform fashion and this should be stored in a central location. It is a good idea to report the documentation quarterly with regards to the status of the measures already done and those currently being carried out.

#### *FYI:*

You can find an Excel template for documenting activities with hints about how to fill it out in 7.3. *Template for documenting campaign presence.*

### 3.3 Media presence

Media presence is the pre-requisite for a campaign to actually generate awareness and to be disseminated throughout the general public. This is done through media response analysis and looks at the questions of when, where and in what form is which information available to the target groups. This involves assessing the communication media spread by the campaign in terms of occurrence and reach.

#### Use

This assessment allows statements to be made about:

- which **messages** were broadcast to the target groups
- the extent to which the **core messages** were taken up by the media
- what kind of articles were of **particular interest** to the media
- how much **interest there was in campaign press releases** shown by the media

- how interested the **general public was in the campaign topics**
- the **scope of the press activities** done by the campaign manager/s

#### Methods

The first step is to develop a list of keywords related to the campaign topic. It is a good idea to involve PR people and/or specialists from a media agency. The resulting list is used to record “hits” in various media. It is also used by the media person commissioned to monitor the campaign in the media. Two sources should be distinguished when assessing media presence:

- **Press echo:** This includes all mentions of the campaign found in the media. A clipping service is used to collect all reports which appear in newspapers, magazines, online, on radio and television based on the keyword list. Search engines can also be used for assessing media presence<sup>2</sup>.
- **Own media:** This category contains all communication published in the campaign organiser’s own media. Looking at your own media is a measure of the type and scope of press activities and public relations done by the campaign manager. It includes collecting any communication that appears in your own publications (e.g. newsletters) and online presence. If the campaign has its own website, then a record of log files should be kept.

The number of media references from various sources should be collected, tabulated and then undergo frequency and content analysis. The aim of frequency analysis is to determine how often the campaign is mentioned in various forms of media. Content analysis, on the other hand, is the subjective evaluation of the media references based on certain elements of the campaign.

**Frequency analysis** should consider the following parameters:

- **Name** of the media, i.e. name of the newspaper, magazine, website, TV programme
- **Title** of the article
- **Form of media** i.e. was it print, online, TV or radio
- **Circulation** – for print media; the number of publications sold/distributed
- **Readership** – this estimates the average number of people per household who read the publication and depends on the type of publication
- **Advertising value equivalency** – this calculates how much an advertisement of equal size to the article would cost in the corresponding medium.
- **Page/Position/Section** – for print media
- **Article environment** – which articles/topics are near where the campaign is mentioned
- **Region/State** – which state or region did the article appear in
- **Type of publication** – e.g. magazine or daily newspaper

<sup>2</sup> You can register an account with Google Alerts and enter the keywords relevant to the campaign. If there is a hit from the first 50 news alerts in a day, a notice is sent via email with a link to the relevant website.

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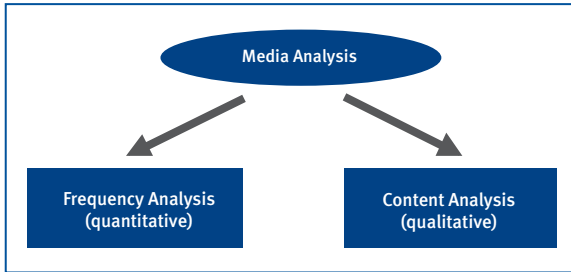


Figure 2:  
Media analysis and its components

- **Date of mention**
- **Publication frequency** (print media, e.g. daily, weekly, monthly)
- **Audience rating** in millions (for TV and radio programmes)
- **Broadcast time** (for TV and radio)
- **Duration in minutes** (for TV and radio)

**Contents analysis** should consider the following parameters:

- **Press echo vs. own media:** this filter decides whether the campaign is mentioned in the press (press echo) or in the campaign organiser's own activities (own media)
- **Regional or national:** whether the print media was regional or national
- **Campaign organiser:** in the situation that several organisations are responsible for a campaign, the mentions can be sorted by the name of the organisation mentioned
- **Self-initiated or press-initiated:** this parameter documents the frequency with which reports appearing in the press can be traced back to the campaign organisers. Press-initiated reports are those that

are not obviously a result of self-initiated press releases.

- **Major activities:** this determines whether the article refers to one of the major activities planned for the campaign.

It should be noted that the media presence evaluation is predominantly used for producing numbers relating to how often the campaign messages were presented to the target groups. However, conclusions about what actually reached the target groups and what interested them can only be done in the next evaluation tier with a more in-depth analytical process (DPRG, 2001). Nevertheless, it is important to have comparison criteria when interpreting the results of media coverage. This might be the results from campaigns of other institutions or data from one of your own previous campaigns.

#### Implementation

Media coverage should be analysed throughout the campaign and regularly communicated in graphical form to the PR team and the press staff of the campaign organisers. It is

recommended to report the latest data either monthly or quarterly. It is also possible to engage a clipping service or media agency to monitor media coverage both quantitatively and qualitatively.

**FYI:**

You can find an Excel spreadsheet for monitoring media coverage in Chapter 7.4 *Template for documenting media presence*

### 3.4 Awareness tier

Campaign and media presence as described above ensure that the target groups are aware of the campaign, its core messages and who is behind all of this. The following evaluation tier focuses on whether the target groups actually have become aware of the campaign, agree that the topics are important and relevant, and see the campaign as something positive.

**Use**

Only after this awareness process has taken place is it possible for other changes in the target groups to take place such as changes in knowledge, attitude and behaviour. However, these ongoing changes only occur after a long period of time. This evaluation tier assesses whether the target groups are aware of, and can remember, the core message of the campaign (see 2.5 *Establishing an effect model for prevention campaigns*). Possible questions to be asked include:

- Can people understand the campaign?
- Can people remember the campaign?
- Does the campaign generate awareness?

- Which elements were particularly effective at raising awareness?
- Are the right kinds of associations being formed with the target groups?
- How many people has the message reached and how many people remember it?
- Which information has been retained, i.e. which messages can the target group still remember?
- How well does the target group rate the campaign as a whole and also its individual parts?
- Do people know who is sending the message?

**Methods**

The aim of this tier is to show whether a significant proportion of the target group actually recognizes and remembers the campaign. This is done by using survey techniques such as telephone surveys, online surveys, paper questionnaires or face-to-face interviews. When writing the questions, it is important that they are related to the Effect Model mentioned previously. Based on our experience, we recommend that the following indicators be investigated by the survey questions (cf. DPRG, 2001):

- The timeliness and appeal of the campaign
- Acceptance of the campaign topic, design and message
- Perception and level of awareness of the campaign
- Recollection of specific messages
- Source of the information and the practicality of the information channels

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- Personal identification with the campaign message
- Activation, behavioural intention regarding campaign contents
- Credibility of the campaign
- Credibility of the organiser and their intentions

If a pre-test/post-test comparison is done, then the **first assessment should only pose general questions** regarding the campaign without asking direct questions about the campaign and its messages. Only after the campaign has been running for some time should a **second assessment with specific questions** be carried out which looks directly at the campaign, its slogan and the way the messages are worded. This more detailed way of approaching the topic makes it possible to register subtle changes in behaviour. Even an increase in awareness of a topic could be a sign that the campaign message is spreading. This then becomes a means of assessing the level of awareness in the target groups. This ranges from those who only have a rudimentary recollection of the campaign right through to those people who can recall specific details of the campaign, who have a positive attitude towards the campaign and who see the contents as being relevant to them. It is worth developing a set of specific awareness questions which can be used in a similar form for the current and for future campaigns. This then forms a comparison criterion.

#### **FYI:**

- See also Chapter 5.3 *Data collection methods*.

- Make sure that you use a response scale with multiple responses so that it is easier to assess changes. The scale should have a minimum of 5 possible responses. For more information on designing questionnaires, see Chapter 5.4
- See also Chapter 5.5 *Recommendations for conducting interviews*.

### **Implementation**

Assessing the level of awareness means that there are questions about how things are to work. Are we talking about a survey or a laboratory assessment? Should it be measure dependent or independent? Is it enough to only do a random survey? Also, the frequency of carrying out a survey is just as important as the question of whether it should be done internally or externally. These points are discussed in more detail below.

#### **1. Survey or laboratory**

The options are either to conduct a retrospective survey or to set up a laboratory situation. Usually the retrospective survey is better suited for assessing a campaign's spread and degree of recognition. Telephone and online surveys are particularly well-suited because recruiting a random sample is relatively straightforward with the help of companies that are experienced in conducting market surveys. On the other hand, laboratory situations are better at assessing the level of awareness especially in terms of campaign motifs, claims, logos, etc. However, the disadvantage of this method is that this type of set-up is intrinsically expensive due to the amount of effort required to re-

cruit a random sample and to carry out the survey.

**FYI:**

Also see Chapter 5.3 *Data collection methods*.

## 2. Measure dependent or independent

*Measure independent* means that assessments are done depending on the length of the campaign. These are done independently of individual activities during the course of the entire campaign. In this situation it is possible to define a larger, representative survey group and this can be used to assess what proportion of the target groups knows about the campaign. The advantage of this type of survey comes from the fact that awareness of a prevention campaign is, generally speaking, difficult to isolate from individual measures. This tier actually looks at the overall effect of all of the measures. Nevertheless, this method of measurement can be used to plan the campaign in terms of individual measures. In this case, the sample group and the size of the sample group are essentially dependent on the individual measures. For example, let's say the campaign is exhibited at a trade fair. Visitors are given a questionnaire to determine their awareness of the campaign.

Combining both of these methods is not only possible but also highly recommended. For example, it is possible to conduct a telephone survey with a representative sample as well as surveying visitors to a trade fair regarding their awareness of the campaign.

## 3. Sampling

Most prevention campaigns are aimed at clearly defined target groups. If these are specified at the beginning of the campaign, then any surveys should focus on these groups only and sampling from the population should be done using accepted scientific methods.

**FYI:**

For more tips, see Chapter 5.2 *Guide to conducting a prevention campaign evaluation*.

## 4. Evaluation design

Lastly, the frequency at which a survey is conducted should be determined. Will it be a one-time or done at the start and at the end of the campaign? Should an intermediate assessment be done? Based on our experience, it is safe to say that a one-time assessment after the campaign has commenced is more than adequate for this tier. This can be done at the half-way point or shortly before the end of the campaign. Even though this means having to accept that conclusions will not be as robust, there are enough good reasons for having a one-time survey: generally speaking the topic of prevention has become an area of focus in various areas including both public and private organisations. This means that the effects of a prevention campaign are difficult to assess in isolation – especially when asking questions related to the level of awareness. If the level of awareness is only tentatively looked at without specifically referring to the campaign, then it is possible to get a more accurate picture of the topic's general presence and this can

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compared with awareness of the campaign.<sup>3</sup> The values obtained can also be used for comparative purposes in future campaigns. That is to say, this comparative criterion can be used for further campaigns as long as the awareness level is assessed each time in a similar way.

#### **FYI:**

Further tips can be found in 5.2. *Guide to conducting a prevention campaign evaluation.*

### 5. External or Internal

Planning and conducting a survey should be done with the assistance of an external organisation specialised in this field. This provides the necessary support required for recruiting a random sample that is truly representative. Even reservations about “self-evaluations” can be dealt with in this way. Using internal resources to conduct the survey is only recommended where there is sufficient internal expertise as well as the appropriate technical means and resources.

#### **FYI:**

For information about scoping out and planning, see Chapter 7.5 *Questions for scoping out evaluations.* This chapter includes a guide which can be used either to briefing out work to external companies or clarifying customer demands through external companies.

### 3.5 Change tier

This tier looks at the changes that take place in the target groups in terms of attitude, knowledge, intentions and behaviour.

#### **Use**

The aim is to gather information regarding the long-term effects that the campaign has had on the target groups. Possible questions derived from the effect model (see Chapter 2.5 *Establishing an effect model for prevention campaigns*) could be:

- Do the target groups have enough knowledge of the campaign topics?
- How has their understanding of the topic changed?
- Are the target groups aware of their own responsibilities and those of others?
- Do the target groups see themselves in the position to implement behaviour that promotes safety (self-efficacy)?
- Do the target groups demonstrate the right behaviour?
- Are the changes in safe behaviour long-term?
- What are the effects of the campaign on the organiser’s image?

Assessment at this tier only makes sense if contact with the target groups is achieved through both mass media and direct intervention. This ensures that ways of increasing safe behaviour are directly conveyed to the target groups. It also means that long-term changes in the effect chain can be expected

<sup>3</sup> Of course, this can also be done using a pre-test/post-test design.

including safer behaviour and safer conditions. If direct communication is not planned as part of the prevention campaign, then assessment at this tier can be ignored and priority given to assessing the level of awareness.

#### Methods

The methodology is similar to that used for Tier 4, Level of Awareness. Both quantitative and qualitative surveying can be used, e.g. telephone surveys, online surveys, questionnaires (paper) or face-to-face interviews. It is also possible at this tier to use *behaviour observation*.

The differences between this tier and the previous tier relate not only to what is being investigated (here the long-term change processes in the target group resulting from the awareness level) but also the methods used. This tier should use stronger experimental and quasi-experimental evaluation designs so that robust conclusions can be made.

Tier 5 should give preference to a *measure-dependent* approach which assesses the effectiveness of key interventions. Specifically this means that before and after an intervention or measure is introduced as part of the campaign, the effectiveness of the measure should be investigated in terms of the conditions and behaviour seen in the workplace. For example, following an information session about skin care products and skin protection in the workplace, it is possible to observe an increase in the frequency with which these are used. It would also be

possible to assess effectiveness by using a control group that receives the measures at a later stage. It could be said that hardly any changes in behaviour or conditions can be determined using survey methods. This can only be done by looking closer at the target groups because changes in behaviour are best determined by assessing specific measures. The following indicators can be derived from the questions asked at this tier:

- Knowledge of the issues raised by the campaign
- Changes in attitude towards the campaign topic
- Perceived self-efficacy in terms of the safe behaviour being encouraged
- Responsibility for self and others (i.e. awareness and willingness to take on responsibility)
- Changes in behaviour (distinguishing between intentions and actual behaviour and maintaining the behaviour)
- Changes in the campaign organiser's image

However, it is important not to set the criterion for changes in specific goals too high: even a measurable change in behaviour of five percent in the target groups or sub-groups is recognised by experienced campaign researchers as successful (cf. Rogers & Storey, 1987).

#### **FYI:**

- See Chapter 5.3 *Data collection methods*.
- Make sure that you use a scale with multiple responses so that it is easier to assess changes. The scale should have a minimum of 5 possible responses. For more



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information on designing questionnaires, see Chapter 5.4. *Recommendations for designing questionnaires.*

- See also Chapter 5.5 *Recommendations for conducting interviews.*

#### Implementation

Despite their many similarities, it is the implementation of this tier which differs the most from assessing the level of awareness as previously described. These similarities will not be explained again; instead, the focus will be on experimental or quasi-experimental evaluation design and the issue of measure-dependent versus measure-independent.

#### Experimental or quasi-experimental evaluation designs

Potential changes in the behaviour of the target group and workplace conditions are the core focus of the campaign. Due to this fact, the **Change Tier** is exceptionally important for stating whether a prevention campaign has been successful. Evaluations at this tier assess results and effects. They determine whether a change has taken place in the desired direction and if yes, what proportion can be attributed to the prevention campaign. A test-control group design with multiple measurement points (at least before and after) can deliver some compelling results.

#### **FYI:**

N.B. The evaluation design determines the robustness of your results. Therefore, it is important to weigh up whether you want to

measure change or simply state the current situation. You might also wish to read Chapter 5.2.9 *Evaluation design* which has recommendations for choosing the right evaluation design.

#### Measure dependent or independent

The evaluation should be aligned with the core measures and interventions of the campaign.

- Efficacy tests for specific measures and interventions produce a particularly good correlation between measures, target groups and the evaluation.
- Experience has shown that due to the immediacy of the measures implemented that changes in behaviour can be seen fairly early on.

In addition to a test-control-group design with pre and post measurement, it is advisable to conduct a follow-up study in order to ensure sustainability (as long as the budget allows for this and the target groups are still available).

Campaigns are based on an effect hierarchy in which only a very limited proportion of the target groups adopts the safe behaviour and conditions being communicated (see McGuire, 1989). Only through direct intervention in the workplace do you have the right type of personal communication that makes it possible to determine the type of changes in behaviour and conditions that is described above. Therefore, it is recommended that a measure-independent survey of the key influencers in the target groups is done. This can

help to assess whether the campaign topic has actually engaged the target groups. The alternative of a measure-independent survey of the target groups themselves would require a very large representative sample size in order to determine any changes or effects. There should be a focus on the most important target groups. Not every measure in a campaign can be evaluated or is worth evaluating.

### Sampling (internal vs. external)

See Chapter 3.4 *Awareness tier*.

#### *FYI:*

For more information about working with external providers, see Chapter 7.5 *Questions for scoping out evaluations*.

### 3.6 Cost-benefit analysis

The benefits of prevention are actually quite difficult to estimate: Accidents and illnesses are future incidents, from a prevention point of view, and which should be prevented by using targeted measures. Afterwards it is not possible to say what has been affected because you cannot count incidents that have not taken place (i.e. the accidents and incidents that have been prevented). Furthermore, it is not possible to convert all of the positive effects of prevention campaigns into monetary terms. How many more euros, pounds or dollars are gained as a result of a healthier, better motivated worker? Here, a cost-benefit analysis is used in order to deal with difficulties in assessing benefits.

### Use

Cost-benefit analysis should be used as part of a prevention campaign in order to direct resources to those areas which show the most promise for providing benefit. They are used to learn from previous campaigns how you can improve effectiveness and efficiency over the long-term. In addition they provide evidence of the responsible use of accident insurance premiums and public funds.

### Methods

Fundamentally there are three different methods for conducting a **cost-benefit analysis**. Whereas cost-benefit analysis in its strictest sense must focus on the monetary side, **utility analysis** is interested in the non-monetary side. **Cost-effectiveness analysis** represents a synergy between both forms of analysis.

#### 1. Cost-benefit analysis (in its strictest sense)

This attempts to squeeze benefits into monetary terms as much as is possible. Certain aspects where this is not possible are simply not included in the analysis; only values which can be monetized are included in the calculations. This approach requires business-style calculations for assessing investments.

#### 2. Utility analysis

This takes into consideration non-monetary values (e.g. motivation, image, simplifying administration or workplace quality). Utility analysis does away with monetary values

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and instead uses a point system to rate all assessment criteria both on the cost side and the benefit side (e.g. purchase price, exposure to pollutants). For instance zero points means zero benefit and ten points means the best possible benefit for the organisation.

#### 3. Cost-effectiveness analysis

This analysis combines elements of cost-benefit analysis in its strictest sense with elements of utility analysis. The costs are rated in terms of monetary units and the benefit side (including values that cannot be monetized) is rated in terms of points. Information is gathered about monetary values (e.g. purchase costs and proceeds) as well as non-monetary values.

Depending on whether the cost-benefit analysis is done with only monetary values, only non-monetary values or a combination of both can be determined using the following matrix.

#### Implementation

Cost-benefit analysis in the classic business sense is used to forecast, that is, it is used **before an investment**. Its purpose is to evaluate and compare different investment alternatives and to select the most promising option. This way, decisions are documented which are also clear and understandable later on. The decision to go ahead with an investment is done by weighing up the pros and cons. In business this means comparing the costs with the benefits. Due to the fact that nobody can perfectly predict the future, this process is reliant on assumptions and estimations. In order to ensure and improve the reliability of assumptions and the accuracy of estimates for future investments and projects, it is both helpful and logical to do a cost-benefit analysis once again **after the investment**. This approach is consistent with the basic principles of evaluation!

#### **FYI:**

For more about the suitability of accident numbers as an indicator please read Chapter 5.6 *Suitability of accident numbers as an indicator of a campaign's effect*.

Approach	Values included for cost and benefit categories	Assessment units
Cost-benefit analysis in its strictest sense	Monetary values only	Monetary units
Utility analysis	Non-monetary values only	Points
Cost-effectiveness analysis	Both monetary and non-monetary values	Monetary units and points

### 3.7 Quality of the campaign structure and processes

In addition to the effect that the campaign has had on the target groups, it is also important to evaluate the campaign organiser's internal structure and processes. The process evaluation aims primarily to generate extra ideas for future campaigns, i.e., to provide evaluations of project planning, project organisation and project management. It also looks at the adequacy of the cooperation process for working on the relevant content issues of the campaign.

#### Use

Assessing the quality of the campaign's structure and processes starts a process of continuous improvement in which the campaign organisers, especially those in PR, can see the importance of the evaluation for obtaining information about where the campaign is at and where should it be going. As a result, this ensures also for the other tiers of the evaluation that the results are used further.

#### Methods

The process evaluation should flow into a process map/image which can be used for quality control and optimising internal processes. There are two possible approaches for this which can be used individually or in combination. They are *experience exchange through surveying* or *experience exchange through moderation*.

1. With a *survey*, the evaluator investigates the interests and insights of the campaign organisers in terms of the process evaluation. Based on this information, they establish the criteria which should be examined. The following questions are possible areas to focus on:

- How good was cooperation in the campaign?
- Was there a good flow of information?
- What can be done to improve this campaign?
- Were the services offered by the campaign organisers being accepted?
- Was the project schedule set realistically?
- Were the goals for the campaign organisers clear and transparent?
- Could permanent structures/networks be developed as a result of the campaign?
- What were the highlights, weak areas and deficits in the way the campaign was managed, in the methods used to send out materials and in the materials themselves?
- How good was communication amongst the organisers?
- How important was "innovation" during the campaign?

These elements can be organised into a questionnaire and given to the campaign organisers. Prior to this it is important to ascertain which people are in a position to provide comprehensive answers to the questions.

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2. Another possibility is to bring together those people who are responsible for the campaign at an operational level in a *moderated experience exchange session*. This is a great opportunity to take the experience and insights from the current campaign and use this information to optimise the next campaign. If a questionnaire, as described above, has already been done, the results from the questionnaire can be used as the basis of discussion in this exchange session.

Possible areas to focus on at this level are:

- What can we learn from the process evaluation?
- What can we learn from internal cooperation?
- Campaign architecture – problem areas
- Organisation of work processes – team, human resources
- Scheduling
- Project management
- Project communication
- Services of the umbrella campaign
- Presentation
- Implications for the next project
- Results of the evaluation: Using the telephone survey, process evaluation, media analysis
- Goals and subgoals for the next campaign

An action plan is generated from this session and this can be given to the next campaign team. This ensures that important information regarding structure and process quality is captured and also important insights from the evaluation are included.

### Implementation

A process evaluation can be done either once retrospectively or at regular intervals in order to identify problems in the campaign structure and to make adjustments accordingly. We strongly recommend using the questionnaire in combination with a moderated session to ensure that the results are used further. In addition, it is particularly important at this level to work in cooperation with external companies as the internal evaluators are usually another target group being surveyed at this level.

- **The survey** should be conducted using face-to-face or telephone interviews with exploratory questions and a group size that can be easily managed. For larger groups, it is possible to use traditional pen and paper questionnaires or online questionnaires.
- **At the end** of the moderated exchange-of-experiences session, an action plan should be produced. It is vital that people are allocated responsibility for the various action points. This makes sure that the results of the process evaluation will be actioned.

If the work is contracted out to an external company, it is important to set up a meeting early on to discuss the details with the external company. It is highly recommended that the managers responsible for the campaign are present at this meeting because they are the ones who are most interested in the results at this tier. Furthermore, they are the ones who are in a position to use the results

and to implement them in future campaigns. A self-evaluation only makes sense if there are already standardised measurement instruments in place which can be used regularly at the end of projects.

***FYI:***

For more information about working with external companies see Chapter 7.5 *Questions for scoping out evaluations*.



## 4 Information management of the results

The campaign can be divided into three phases: Preparation – Implementation – Conclusion. In all three phases, the evaluation results have a different meaning and different values. Therefore, information management of the results is absolutely vital.

In the **Preparation Phase** of the campaign, it is often only after the evaluation has been done that the organisers take time to stop and think about the goals of their measures. They also take time to convert their implicit assumptions concerning the effect of a campaign into explicit expectations which can be empirically tested. The evaluation results in this phase show whether the campaign is heading in the right direction and whether it is in the right format.

In the **Implementation Phase** of the campaign, the evaluation's primary role is to provide information at the operational level. Furthermore, the evaluation results also provide strategic information because they form the basis of the information that will be communicated to the general public. For example, if there are deficits in the target group's understanding and knowledge of the campaign's topic, then it is possible to tell the general public about possible preventive measures.<sup>4</sup>

In the **Conclusion Phase** of a campaign the evaluation results have two important roles to play; firstly, to provide important insights which can be used for future campaigns (process-related) and secondly, to provide information about the campaign topic to both the organisers and the general public (topic-related).

Table 1 provides an overview of the processes that take place as part of comprehensive information management and the relevant stakeholders required.

### Use

We recommend establishing a comprehensive information management system in the three phases of the campaign mentioned above. This should be based on the tiered-model of evaluating prevention campaigns because it makes it possible to report back evaluation results. This should be done:

- according to their **relevance** (e.g. media coverage for PR people)
- with the relevant **stakeholders** (e.g. PR people, prevention experts)
- in a **systematic** way (e.g. through regular participation in board/panel meetings, regular emails, etc)
- in a **timely** manner

<sup>4</sup> From: Probst, G.; Raub, S.; Romhardt, K. (2010): *Wissen managen*. Zürich: FAZ/Gabler, Wiesbaden und NZZ/Gabler.



## 4 Information management for the results

Table 1:  
Uses of information management in relation to the stakeholders

Stakeholder	Processes
<ul style="list-style-type: none"> <li>Inform organisers</li> <li>Inform the self-administration board (<i>Selbstverwaltung</i>)<sup>5</sup></li> </ul>	<p><b>Before the campaign</b></p> <ul style="list-style-type: none"> <li>Assists with finding the right measures</li> <li>Makes sure that campaign goals and measures are aligned and that they are measurable</li> <li>Assists with working within a budget</li> <li>Creates transparency</li> </ul> <p><b>During the campaign</b></p> <ul style="list-style-type: none"> <li>Adjusts the direction of the current campaign</li> <li>Supports learning processes in the campaign</li> <li>Assures quality</li> <li>Creates openness for all involved – produces a learning culture</li> <li>Ensures the continuance of the campaign</li> <li>Creates transparency</li> </ul> <p><b>After the campaign</b></p> <ul style="list-style-type: none"> <li>Provides insights for future campaigns</li> <li>Creates transparency</li> </ul>
<ul style="list-style-type: none"> <li>Inform general public</li> </ul>	<p><b>During and after the campaign</b></p> <ul style="list-style-type: none"> <li>Encourages learning process in the target groups</li> <li>Improves the image of the campaign organisers</li> <li>Creates transparency</li> </ul>

**Example:**

The media presence results (i.e. media coverage) can be emailed to the PR team in statistical/graphical form once a month or quarterly. For each of the evaluation tiers, it is possible to decide to whom, when and in what form

the relevant information is provided. This should be determined early on during the phase of establishing the evaluation concept. This ensures that the stakeholders receive relevant information in a timely manner in order to maximise their use for the campaign.

**FYI:**

Use the resources in Chapter 7.1 to help you develop an information management system for your campaign.

<sup>5</sup> In Germany, “Selbstverwaltung“ refers to the system of self-administration or self-government of the statutory health insurance funds. For more information refer to: [http://www.gkv-spitzenverband.de/Statutory health insurance.gkvnet](http://www.gkv-spitzenverband.de/Statutory_health_insurance.gkvnet)

# 5 Lexicon of methods

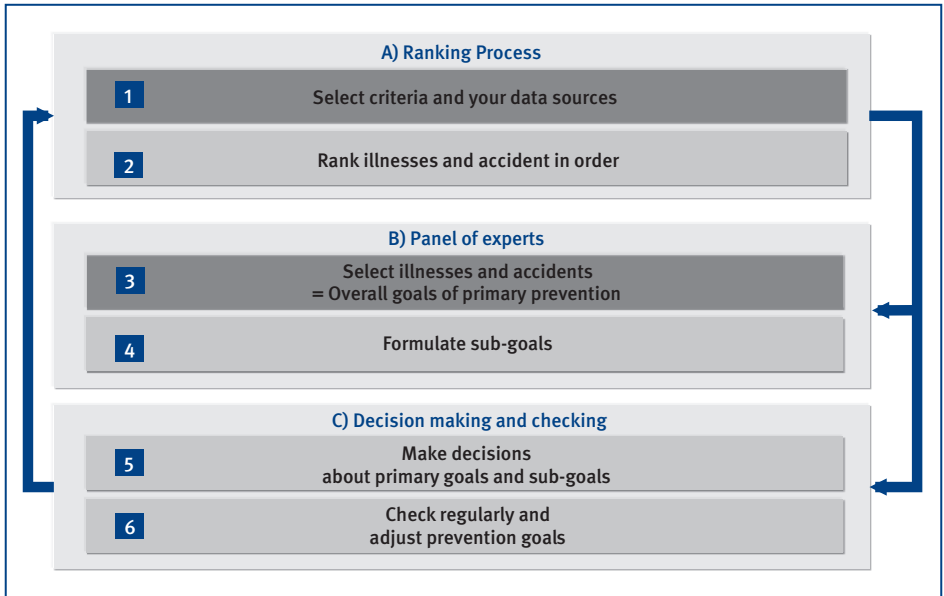
## 5.1 Method for developing prevention goals

The method used by the Initiative for Health and Work (IGA) for developing prevention goals is an approach which combines data with expert assistance. Basically a process of ranking is used in conjunction with a panel of experts (see Figure 3). This method is well suited for selecting the campaign topic and for identifying the relevant areas of action.

### Ranking system

Firstly, criteria are defined which can be used to objectively rank illnesses and/or accidents. In order to ensure the highest level of objectivity, it is important to only select criteria for which there is reliable data. For example, *the number of confirmed work-related illnesses, reported accidents, deaths or costs*. Secondly, the data is evaluated in terms of the defined criteria. This results in

Figure 3:  
IGA approach for developing prevention goals



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a ranked list which clearly shows which illnesses and accidents most urgently need preventive measures. It is important to not only look at those illnesses and accidents at the top of the list but also those which have moved up the list in recent years.

However, establishing umbrella goals and sub goals cannot be done through purely objective means alone. There are also criteria without comprehensive data that have an important role to play. These include criteria such as preventive influence, ease of implementation and *relevance to work*. A panel of experts should be called upon to give their opinions about these criteria. International initiatives have shown that goals are accepted and implemented sooner when respected experts have been involved in the development process. On this basis, the third and fourth steps are done using a panel of experts.

### Panel discussions

There must be a good level of preparation for the discussions (existing prevention programmes, research on the effectiveness of measures, people involved, resources, etc). The discussions should also assess new risks in the workplace and possible prevention topics for which there is currently no statistical information.

The third step is to specify non-quantitative umbrella goals. These are based on the illnesses and accidents previously identified and should also consider any additional criteria. These criteria could include:

- Need for action based on the data
- Image boost for the insurance provider
- Acceptance in OSH
- Preventive influence
- Ease of implementation
- Work relevance
- Political relevance
- Affect on the campaign organiser
- Ability to evaluate the success of the campaign
- Timing of the evaluation
- Sustainability
- Ability to communicate messages and goals

The fourth step is to take the subgoals generated by the panel of experts and put them into quantifiable units. For primary prevention, the subgoals are formulated in terms of conditions, behaviour and specific target groups. At a later stage these can be formulated more concretely using the SMART method (see also Chapter 5.2.2).

### Decision making and checking

Once the ranking process and expert discussion have been completed, final decisions concerning the campaign can be made by a special committee. For example, in developing prevention goals this committee could consist of representatives from federal and state government, from accident insurance agencies and from social services. They could be supported by experts in occupational medicine as well as OSH experts.

#### **FYI:**

You can read more about deciding on a campaign topic and defining subgoals in

Chapter 5.2.2 *Defining the goals of a preventive measure.*

## 5.2 Guide to conducting a prevention campaign evaluation

### 5.2.1 Definition of evaluation

Evaluation in terms of OSH means the systematic assessment of the benefit or value of a preventive measure (e.g. programmes, projects, services, institutions, statutory regulations, policies) using social science methods. The results, conclusions and recommendations are a result of empirical, qualitative and/or quantitative data and their basis is clearly understood.

There are two types of evaluations:

1. The *formative evaluation*, also known as process evaluation, is used for continuous improvement of the measure and its implementation.
2. The *summative evaluation* assesses, in summary, the effectiveness of the measures by assessing whether the goals of the measures were actually achieved (effectiveness) and whether the effort required to achieve this was acceptable (efficiency).

### 5.2.2 Defining the goals of a preventive measure

What are the goals of your preventive measures? Goal setting has a particularly important role to play in the initial planning phase of the evaluation. It is often the case that

there is implicit knowledge of what should be achieved with the measure and that only later are the goals written down. However, without “Goal” as a comparison criterion it is difficult to evaluate the benefit of a measure: Set clear goals for the preventive measures before you implement them. For example, do you want to:

- raise awareness?
- improve people’s knowledge?
- change people’s behaviour?
- change people’s attitude?
- reduce costs?
- reduce accidents?

It is only after you have established which of these factors are relevant to prevention that you have a blueprint for planning your measures and also a comparison criterion that can be used in the evaluation. In practice, it is often the case that hierarchical goals are found which can be represented in a system of goals. If this turns out to be a complex goal system, then it is a good idea to divide these into:

- **Overriding goals or primary goals:** It is important to work within context and formulate what need there is for a preventive measure and what vision you are striving for (e.g. an improvement in workplace OSH). Generally speaking, these primary goals cannot be met directly but rather are achieved through a series of intermediate steps (see also Chapter 6.3 *Phase model of campaign effectiveness*). The reason for this is that often these primary goals are not expressed in measurable terms (e.g. number, money, weight). Usu-

ally these primary goals are designated as action areas in a campaign and can be set using the IGA method as described in Chapter 5.1.

- **Operational goals or subgoals:** The purpose of these goals is to specify information regarding the definition and implementation of the primary goals. As such they contain specific information regarding direction, method and steps required to implement the preventive measures (e.g. businesses should incorporate the topic of safety into their work organisation, etc). The goals at this level are operationally defined.

These operational goals are particularly important for the evaluation. These detailed goals state which measures are to be implemented in order to achieve specific results. They are also used as assessment criteria for determin-

ing the success of the goals. A proven tool for formulating operational goals is the **SMART** method. Operational goals should be:

- **Specific**, i.e. clear, precise and concrete
- **Measurable**, i.e. by surveying the target groups or using other databases
- **Agreed**, i.e. the relevance of the goal is obvious for those involved and there should be no ethical reasons not to pursue this goal
- **Realistic**, i.e. the goals are achievable and have not been set too high
- **Time specific**, i.e. a specific time frame is set

N.B.: When deciding whether to include a goal as part of the evaluation, it is particularly important to look at its measurability. If a goal is not measurable then its benefit can only be assessed rather superficially.

### **Example:**

The framework of a prevention campaign in Germany is set by the umbrella campaign (see Chapter 2.1 *Definition of prevention campaigns*). Next, the employers' liability insurance association decides which areas their industry has an impact on. Let's take the example of a campaign concerning "internal transport" and "load securing". Firstly, the campaign organiser sets the primary goals:

- Warnings should be given about the risk of accidents during in-house transportation and the dangers of unsecured or poorly-secured loads. This should focus the attention of the target groups affected by the campaign on potential problems (increase knowledge, awareness).
- The target groups affected by the campaign are to be given information regarding appropriate safe behaviour and encouraged to perform this behaviour. (behavioural change, attitudinal change)

The *operational goals* that can be derived from these are:

- Incorporate the topics of “Internal Transport” and “Load securing” into training sessions
- Improve driver training for drivers of motorcycles, cars, vans and lorries
- Increase the use of qualified drivers in the company: lorries, transporters, forklifts, etc

Once the operational goals have been set, they can be checked for their appropriateness using the SMART method. In the example of additional training as given above, the SMART assessment of this goal might look as follows:

- **Specific:** The training consists of two elements.
- **Measurable:** The number of training sessions conducted can be documented. A knowledge test can be administered to the target groups to assess learning.
- **Agreed:** All those involved agree that it is desirable to receive important information about the campaign topic through training. There are no ethical concerns.
- **Realistic:** A campaign period of 2 years provides enough time for many people in the target groups to receive training. It can be safely assumed that there will be changes in people’s knowledge of the topics.
- **Time specific:** It is possible to carry out the training in the time period provided.

### **FYI:**

For more information about deciding on overriding goals, look also at Chapter 5.1 *Method for developing prevention goals*. This explains how a campaign topic and its primary goals can be defined using statistical data in conjunction with a panel of experts.

### **5.2.3 Identifying and including stakeholders and target groups**

Stakeholders are the people who have a stake or interest in the results of the evaluation. This also includes:

- **people involved in the campaign**, i.e. the campaign planners, campaign organisers and external companies contracted for the evaluation

- **people affected by the campaign**, i.e. the target groups who the preventive measures are designed to benefit

Both of these groups of people should be considered when formulating the purpose of the evaluation, so that there is greater acceptance of, and identification with, a measure. At the start of an evaluation, draw up a list of stakeholders relevant to the planned evaluation. Ask yourself who of these can help with the evaluation, who can potentially obstruct it and who are indifferent. Next, form a small working team for the evaluation with representatives from the major stakeholders. Generally speaking, major stakeholders are those who can influence the way the evaluation results are used. Bouncing around different ideas and playing devil’s advocate makes it possible to analyse these

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aspects of the evaluation early on and make sure that they are included.

Finally, it is very important when agreeing upon the subject matter of the evaluation to look at who is the target of the preventive measure. If there are different target groups then it is important to make sure that the measurement tools used in the evaluation are set up for this. Establish which goals are applicable to all groups and which have indi-

vidual differences (goal convergence versus goal divergence). Depending on the results of this you can agree upon the goals of the preventive measures that are relevant to the evaluation. It is important to note that not all goals of a preventive measure are relevant to the evaluation. Put simply, it does not make sense to evaluate everything that can be evaluated and sometimes things that logically should be evaluated simply can not be evaluated.

### *Example:*

The campaign team is comprised of a supervisor, training manager and PR person and they think about who the stakeholders are for the campaign. People involved in the campaign might be:

- Prevention Manager: They contract out the evaluation and are interested in the results.
- Managing Director: They are interested in the results
- The self-administration board: They are interested in the results
- The OSH specialist (internal or external) because they have a good understanding of the business and are well-known as a company spokesperson to those impacted by the campaign.
- The works council because they sometimes have approval rights over employee surveys.
- The statistics department because their expertise is needed for the planning and assessing of the evaluation.

The target groups impacted by the campaign are:

- Business owners
- Supervisors
- Safety professional
- Employees

Looking at this list, it is clear that the prevention manager must be regularly updated about the progress of the planning and design of the evaluation. This person is the representative who communicates the evaluation results to higher levels (the self-administration board, the upper-management team, etc). Defining the purpose of the evaluation should be done in cooperation with these higher levels. At a later point it is worth considering whether the company's viewpoint should also be included as part of planning the evaluation. This would make it possible, for example, to check the suitability of the survey methods: e.g. pretesting a questionnaire with business owners, safety experts and employees.

#### 5.2.4 Determining the purpose of the evaluation

What do you want to learn from the evaluation? What is its purpose and what do you want to get out of the evaluation?

The purpose of the evaluation determines what will be done with the evaluation results from a preventive measure. Evaluation research distinguishes between five different purposes of an evaluation:

- **Insight/Knowledge function:** Evaluation research wants to collect scientific knowledge about the characteristics and effects of interventions. For example, supporting the learning process of all those involved (campaign organisers and target groups).
- **Optimisation function:** What are the strengths and weaknesses of the intervention and how can these be built on or overcome. For example, developing new or improving existing campaign measures, getting information about how to adjust the campaign.
- **Control function:** To what degree (effectiveness) and how efficiently (cost-benefit ratio) are the intended effects achieved? Are there side effects? For example, identifying effective campaign measures; establishing the cost-benefit ratio of a campaign measure.
- **Decision-making function:** Should a specific measure get more support, be developed further or discontinued? For example, evaluate the intended and unintended effects of a campaign measure or the overall campaign.
- **Legitimisation function:** It justifies the use of (public) funds, it provides a strong argument for individual preventive measures and it informs the self-administration board and the general public about the status of campaign measures in context.

Potentially more than just one of the aforementioned functions can be achieved through an evaluation. Determining which of these is applicable to the evaluation should definitely be discussed with the stakeholders.



### *Excursus:*

In practice, the most common purposes of an evaluation are the control, decision-making and legitimisation functions. The catch is, however, that these purposes elicit high expectations from the stakeholders and also from the evaluators. After all, they always have the end-result in mind and focus exclusively on the “success” of a preventive measure. If a “success” is not confirmed by the evaluation, the entire preventive measure will be called into question. However, other process-related factors which have contributed to the result are deliberately ignored or possibly not even recognized.

Thus, in order to provide the stakeholders with a long-term learning process regarding preventive measures it is important to combine the three functions mentioned above with the knowledge and/or optimisation functions where possible. This gives everyone involved, including the evaluator, the possibility to optimise the preventive measure because any deficits can be brought to light in a timely manner. Further improving knowledge and optimisation, which is synonymous with the success of the preventive measure, changes the evaluation’s priorities. Generally speaking this also increases support from those people who previously had shown concerns about the evaluation.

### *Example:*

The members of the campaign team set the purpose of the evaluation. They firstly decide that the evaluation primarily serves to legitimise the campaign. The evaluation should show the stakeholders that the preventive measure has fulfilled its purpose. The second purpose that they

set is the knowledge function. Planning the design of the next campaign should be based on the insights gained from the current campaign.

The prevention manager is informed about the purposes of the evaluation and they acknowledge and agree with them.

### 5.2.5 Raising questions about the evaluation

After setting the purposes of the evaluation, questions will arise surrounding the assessment of a preventive measure. This stage determines which data and information you wish to get about the object of the evaluation. The questions should be seen as research questions that naturally will be worded in research terms (e.g. “Are back exercises suitable for reducing musculoskeletal disorders?”) The usual types of questions used to survey target groups do not fall into this category. These questions are only developed in the next phase of formulating questions related to the evaluation (e.g. “How often have you done back exercises in the last month?”)

Possible questions about the evaluation concern effectiveness, efficiency and possibilities for optimisation.

#### Questions about effectiveness:

Effectiveness talks about the degree to which a preventive measure has been successful in achieving its goals, regardless of the cost and effort required. The key questions are:

- To what degree have the goals for the target groups been met?
- What can the success of the preventive measure be attributed to?
- Have the fundamental assumptions of the underlying effect model been confirmed by the data?

- Have any unintentional effects been seen in the target groups or others?

#### Questions about efficiency:

Efficiency talks about the efficient performance of a preventive measure. The starting point for formulating questions is the ratio of effort to performance. Key questions relate to:

- the effort required from the campaign coordinators to run the preventive measure
- if and how the target groups benefited from the preventive measure or whether any benefit ceased
- whether the preventive measure was financially viable in terms of implementation and goal achievement
- if there were any inefficiencies in implementation

#### Questions about recommendations:

The recommendations talk about the possibilities for optimising the methodological approach towards preventive measures. The key questions are:

- Do the goals, target groups and implementation tools have to be adjusted?
- Are there more efficient alternatives for implementation?
- In order for the preventive measure to continue are there consequences for goal setting, implementation and data collection?

### **Example:**

Taking into account the purpose of the evaluation, the first priority is to establish the effectiveness of the preventive measure and to inform the relevant stakeholders. For example, the campaign team has identified the previously mentioned goal: The topic of “internal transport” and “load securing” should be incorporated into company training. As a result they produce the following questions which are formulated in a way that they cover various goals:

- Was the goal achieved?
- What percentage of the target groups could be reached?
- Has the target groups’ understanding of the topic improved? Are there differences between the target groups?
- Have there been changes in behaviour or workplace conditions?
- Can these changes be attributed to the campaign activities?
- Etc.

### **5.2.6 Assessing the feasibility of conducting the evaluation**

The next step is to examine how the evaluation should be conducted. After the purpose of the evaluation has been established, the next step is to determine the type of evaluation and its scope. At the same time a decision should be made regarding whether the evaluation is conducted by internal staff or outsourced.

The decision of what type of evaluation to use is closely tied to the schedule. There are two possibilities: Concurrently or at the start and end of a preventive measure.

#### **Concurrent to the preventive measure:**

In order to adjust and optimise the running of the campaign, information about the preventive measure is collected as it is being

conducted. For example, the people responsible for promoting the campaign in the company come together regularly and with the help of a moderator provide feedback about their experiences. This helps to refine and improve consultation.

#### **At the start and end of the preventive measure:**

This looks at the effectiveness of the preventive measure. More precisely, if there have been any changes since the introduction of the measure and what form this has taken. In order to determine if there have been any changes it is necessary to establish a line in the sand before the measure is introduced so that after its implementation a second assessment can be conducted to discover any changes. Say, for example, you wish to examine whether the target groups know more about safe driving and transport as a

result of the campaign. To do this, a knowledge test would be given to the target groups before the campaign and then once again following completion of the campaign. A subsequent test six months later would establish whether long-term changes and improvements have occurred.

The scope of the evaluation depends on what goals you have for assessing the campaign's effectiveness. In particular you need to consider whether you should simply count the number of activities or whether there are also activities worth investigating which can provide an in-depth understanding of the preventive measure. Thus, it is possible to make a distinction between small-scale and large-scale evaluations.

#### Evaluations – small scale:

- The focus is on counting activities.
- Conducted, for example, using checklists which can be rated by frequency and percentage.
- Sample sizes are quite small (not more than approx. 50 people).

#### Evaluations – large scale:

- Surveying tools are developed with answers on a scale and not only yes/no.
- There are different target groups which can be examined for similar or different effects resulting from the campaign using statistical testing.
- The sample size being surveyed is more than 50 people.

Depending on the situation, these lists can be extended. It is important that the scope of the evaluation reflects the social science competencies of the campaign team. This also determines whether the evaluation should be conducted by an internal team or outsourced (see Table 2).

Table 2:  
Schema for deciding to conduct the evaluation with internal or external resources

Evaluation scope	Social-science expertise	
	present	not present
small	can be conducted internally	can be conducted internally to a degree. Where necessary, consult an external agency for developing or approving checklists
large	check whether an external partner can provide support with conducting the evaluation, e.g. engaging a Ph.D student to save costs and time	extern

**Example:**

The example above aims to compare the target groups; therefore, business owners, supervisors and safety experts as well as employees are surveyed. This requires large sample sizes and therefore it is automatically a large evaluation. Nobody in the campaign team has expertise in social-scientific methods, so help is requested from the statistics department. However, the statistics department states that they can only provide assistance with analysis.

As such, a social-scientist is called upon to check the methodological approaches used in planning the evaluation, especially in developing the measurement tools. In this situation, a freelancer who has worked previously for the Employers Liability Insurance Association is contracted to do the work. They agree to methodologically check the questionnaire (in combination with a pre-test) with the target groups. Only after this, should the questionnaire be used with the seminar participants.

**5.2.7 Deriving criteria/indicators**

Criteria determine how a preventive measure is to be assessed insofar as they state the degree and direction of the desired goals. Guides for assessment criteria can be found in the operative goals of a preventive measure (see Chapter 5.2.2 *Defining the goals of a preventive measure*) or asking questions about the evaluation (see Chapter 5.2.5 *Raising questions about the evaluation*). There are criteria which can be expressed in measurable values. However, in empirical social research it is not always possible to directly express complex areas of study in measurable values. If this is the case, then indicators must be developed to help in their investigation. By their definition, indicators are empirically measurable auxiliary variables which provide information about intangible phenomena, contexts or factors. They allow statements to be made about the condition,

development and the quality characteristics of a criterion. In order to derive criteria/indicators from the goals of a campaign, you should firstly:

- state the **goals** of the campaign
- list the **measures** which are designed to achieve these goals
- name the **target groups** that you wish to reach
- align the **criteria/indicators** to the measures, and finally
- state the **methods** needed to elicit the criteria/indicators and possibly decide whether different methods are needed for each of the target groups.

This sequence should be done for each goal with relevance for the evaluation, then entered systematically and clearly into a table as shown in Table 3 below.

This approach makes it possible to clearly assign indicators to the individual measures in the campaign and determine the effects of each. Cause-and-effect models can also be substantiated or illustrated this way. However, if multi-causal correlations underlie the efficacy of a preventive measure, it is difficult to isolate all indicators in advance. This is

always the case when: additional factors, other than the nominated indicators, can explain the effects of a preventive measure; a measure has multiple effects; or multiple effects are interrelated. These types of multi-causal correlations can be more clearly defined by using an appropriate evaluation design which is illustrated in the following.

Table 3:  
Schema for devising criteria/indicators

Campaign topic and goals	Measures	Target group	Criteria/Indicators	Evaluation methods
Incorporate the topic of “internal transport” and “load securing” into training sessions	<ul style="list-style-type: none"> <li>• Create a standardised training module for each topic</li> <li>• Incorporate into training sessions relevant to the topic during the course of the campaign</li> <li>• Create training materials and risk assessment templates to give to the business owner, supervisors and OSH officers at the end of the training</li> </ul>	Business owners, supervisors, safety experts, employees	<p><b>Provision of media (on the topic of internal transport and load securing)</b></p> <ul style="list-style-type: none"> <li>• Number of training documents distributed</li> <li>• Number of risk assessment templates distributed</li> </ul> <p><b>Knowledge improvement (on the topic of internal transport and load securing)</b></p> <ul style="list-style-type: none"> <li>• about rules</li> </ul> <p><b>Attitudinal change</b> in the target groups regarding the topic of internal transport and load securing</p> <p><b>Detect behavioural change</b> by an increase in</p> <ul style="list-style-type: none"> <li>• the number of companies which incorporate internal transport and load securing into their risk assessments</li> <li>• the number of companies with training on internal transport and load securing</li> </ul>	<p>Document activities – statistics</p> <p>Pre-test/post-test online survey of business owners, supervisors, OSH officers and employees that have/have not taken part in the training sessions</p>

### **Example:**

Firstly, the campaign team enters the campaign goals one by one into Table 3 as seen below. For each of the goals, they decide which measures are needed to reach that goal. It is then decided which indicators are appropriate for showing that the goals have been met in terms of each of the measures. The indicators for the ex-

ample below are firstly the provision and distribution of relevant training materials and secondly changes in knowledge, attitude or behaviour with regards to internal transport and load securing. Assessing the provision and distribution of training materials requires documentation. Establishing any changes in knowledge, attitude or behaviour, however, should be done by surveying the target groups.

### **5.2.8 Data collection methods**

Data can be collected using various methods such as questionnaires, interviews, experiments or epidemiological studies. For example, questionnaires can be used when it is important to obtain “quantitative data”. In order to research and analyse an area of interest where information is relatively scarce, interviews can be used to obtain “qualitative data”. For further reading on data collection, see 5.3 *Data collection methods*.

### **Example:**

Table 3 indicates that a survey needs to be conducted and information needs to be documented. The campaign team nominates a contact person for the documentation who receives feedback from on-site trainers and supervisors regarding the number of training materials that have been distributed. This is done using the template that can be found in Part 7.3 *Template for documenting campaign presence*. The campaign team then puts together a list of questions which is handed over to the freelancer with the request to edit the list and then conduct a pre-test with a selected group of contacts.

### 5.2.9 Evaluation design

The evaluation design describes the process of data collection by specifying exactly who receives which preventive measure and who, when and what will be measured. The evaluation design is derived from the evaluation purpose, the target groups to be studied and the questions raised about the evaluation of a preventive measure. The conclusions which can be drawn from the results of evaluating the efficacy of a preventive measure are heavily influenced by the evaluation design. Roughly speaking there are four different types of evaluation designs: One-shot case study, one group pre-test/post-test design, ex-post-facto design, and control-group with pre-test/post-test design. In the following explanations, **X** represents the measure and **O** represents observation/data collection.

#### One-shot Case Study (**X – O**)

The evaluation is done at the end of the preventive measure. There is a one-time collection of data. This evaluation design is only capable of determining the status of a preventive measure. It is not possible to state what the situation was like in the area being studied prior to the preventive measure, nor is it possible to determine if anything else influenced the results.

#### One group pre-test/post-test design (**O – X – O**)

Data collection is done before and after the measure. This allows the scope of any changes to be seen and also the degree to

which the goal has been achieved (effectiveness). However, this design cannot rule out the possibility of other influences being involved. Any possible changes that have been detected might actually be a result of other factors that have nothing to do with the preventive measure.

#### Ex-post-facto design (**Group 1: X – O; Group 2: O**)

This design studies two groups: one receives the measure and the other group does not. Data is only collected following completion of the measure. This design can be used whenever it can be assumed that both groups have a similar starting point and short-term effects of the preventive measure are expected. However, as in the first design, the degree of change is not known because the starting point is unknown.

#### Control-group with pre-test/post-test design (**Group 1; O –X – O; Group 2: O**)

Using this design it is possible to determine the degree to which a preventive measure has been successful in comparison with the group that did not participate in the measure. This allows other factors which may have influenced the results to be identified and excluded.

The evaluation's design should allow robust answers to be given regarding the questions arising from the evaluation. Any of the options listed above can be used depending on the type and scope of research required from the evaluation. Option 4 is seen as



the ideal solution because it overcomes the issues associated with the other designs and because it is particularly well-suited for measuring change.

**Example:**

It has been decided to ask the participants of a training programme, conducted by an employers' liability insurance association, to answer a questionnaire regarding knowledge, attitudes and behaviour related to the topic. This is to be done prior to the actual training. Six months after the seminar, the participants are sent a request via email to complete the same questionnaire again. This means that the one group pre-test/post-test design (O – X – O) is being used.

gender, region and occupation. Usually these attributes are invariable at the time of measurement. Basically speaking, sample size can be determined by using formulas.

Firstly, it is important to gain clarification about the target groups that are to be investigated in terms of the preventive measure's effectiveness. This can be calculated using manual or computer-assisted methods:

**Manual calculation:**

If the total population of the target group is known (e.g. total number of businesses to be covered by the campaign), then the minimum sample size can be determined using the recognised method as follows:

$$n_i \geq \frac{N_i}{1 + \frac{(N_i - 1) \cdot \epsilon^2}{z^2 \cdot P \cdot (1 - P)}}$$

- $n_i$  = minimum required sample from the total population
- $N_i$  = number of elements in the total population
- $\epsilon$  = error tolerance; sets the maximum tolerance level that can vary from the actual mean.
- $z$  = the probable degree of confidence calculated using standard normal distribution. This gives the probability that the calculated mean lies within the confidence interval.
- $P$  = estimated proportion of the population with particular characteristics that are important for the aim of the study, for example, the proportion of member companies that have carried out a hazard analysis.

**5.2.10 Calculating sample sizes**

Due to time and cost restraints, it is not usually possible to survey every person in a target group when assessing the effectiveness of a preventive measure. Therefore, a suitably sized sample group is selected from the total number of people who have been encompassed by a preventive measure. This method is based on the assumption that the results from the sample can be extrapolated to the target group population. This is referred to as a representative sample. In order for a sample to be representative it must have the same characteristics as the universal population and these should also be relevant to the goals of the preventive measure. These characteristics can include

The term  $P \cdot (1 - P)$  is greatest when  $P = 0.5$ . If there is no reliable estimate for this proportion, then even in the worst case,  $P = 0.5$  is chosen for a sufficiently large sample size.

Using a probable degree of confidence ( $z$ ) of 95% ( $z = 1.96$ ) and error tolerance of ( $\epsilon$ ) of 0.05 produces the required sample size for the relevant population.

For example, the total number of all companies could be used as the population in the formula above. Sub-populations can also be specified. This would make sense if the campaign is only targeting certain industries. If region is an important factor for the sample to be representative then the proportion of individual regions in the total population can be ascertained and applied proportionally to the sample. Example: If 20% of all chemical companies are in Saxony, then 20% of the companies in the sample would also come from Saxony.

#### Computer-assisted calculation:

Minimum sample size can also be determined using the power analysis software “G\*Power”<sup>6</sup>. Firstly, the following parameters should be set:

- How many groups are to be compared?
- Which test strengths ( $1 - \beta$ ) are assumed?
- What is the acceptable error level ( $\alpha$ -error)?
- Which statistical method should be used?

The use of the G\*Power software requires an existing level of expertise in social scientific

methods. It is vital that a statistician or social scientist is involved in setting the parameters which are to be used for determining the minimum sample size.

It is important to note that if data is collected over several points in time, it is possible to either:

- select **dependent** sample groups, i.e. the same people are surveyed using the same measurement tool at various points in time, or
- select **independent** sample groups, i.e. different people are surveyed using the same measurement tool at various points in time.

The use of independent sample groups assumes that the preventive measures have reached both groups; otherwise the ability to compare the groups cannot be guaranteed.

### 5.3 Data collection methods

There are various forms of data collection. These range from simple questionnaires, through to interviews and behavioural observation, and to experiments and epidemiology. These are briefly outlined below with the help of examples (Paridon & Taskan, 2009).

1. **Questionnaires** contain a sequence of pre-set questions or statements about one or more topic areas. These are then answered or rated by the people being surveyed. A difference is made between open and closed questions. Open questions can be answered freely by the

<sup>6</sup> Can be downloaded from <http://www.psych.uni-duesseldorf.de/aap/projects/gpower/>

**Example:**

The campaign team approaches the statistics department to assist in calculating the required sample sizes. The total population to be drawn upon is everyone who has participated in training courses at the Employers Liability Insurance Association over the past year. The breakdown of the participants is as follows: 30% were regular employees, 40% were safety experts and 30% were business owners or supervisors.

The total population is 20,000 annual participants. This information is entered into the formula for “calculating sample size”.

The resulting sample size should have a degree of confidence of 95% ( $z=1.96$ ). Accordingly, the error tolerance is 5% ( $=0.05$ ). The worst case is assumed that the target groups can only be drawn from the total population with a probability of 50% ( $p=0.5$ ). These parameters are entered into the sample formula. Thus, the required sample size is approximately 377 people. The proportions are set as: employees (30% of  $377=113$ ), safety experts (40% of  $377=151$ ) and company owners/managers (30% of  $377=133$ ). Dependent samples are used because the same seminar participants are to be surveyed before the seminar and once more after the seminar with an online survey.

respondents. Closed questions/statements have pre-set answers to choose from. Questionnaires can be used to collect information about people’s personality characteristics or attitudes, to describe specific facts or to assess behaviour, knowledge and expectations related to the topic. Questionnaires can be used to collect both qualitative and quantitative data.

**Example:** Employees rate a specific preventive measure implemented in the company in terms of various aspects such as effectiveness, duration and ease of comprehension.

2. The **Interview** is a conversation between an interviewer and a respondent on set

topics. Interviews are seen as a core pillar of qualitative research. Interviews are conducted orally and the interviewer makes notes about the respondent’s answers. Interviews can be standardised, semi-standardised or unstructured depending on how fixed the questions and their sequence are. Questions can be open or closed. Interviews can be used to either gather information or to impart information. Interviews that gather information are used to collect data. Interviews that impart data are used for various consultation purposes.

**Example:** Employees are interviewed about the reasons why they do not use ergonomic equipment provided by their employer.

3. **Behaviour observation** is a method which involves observing one or more people in order to gather information about what constitutes their characteristic behaviour. The observation can be done on a casual or systematic basis. Systematic observation involves the use of observation systems which are labelled either a “sign system” or a “category system”. The “sign system” involves making statements about specific expected behaviour prior to the observation and then counting the observed frequency of this behaviour. The “category system” involves recording all observed behaviour and placing each of them into pre-defined categories.

*Example:* An employee is observed to see which demands are put upon them in the workplace. This type of job demand analysis can be used as part of the integration process used when an employee with impaired abilities gets a new position.

4. The **Experiment** is the most important method for making and confirming statements of causality (cause-effect relationships). In an experiment, independent variables are manipulated by the researcher (e.g. lighting conditions) and the effect this has on dependent variables (e.g. reading speed) is investigated. Experiments allow various behavioural data to be collected such as reaction times or physiological data (e.g. heart rate or muscle activity). However, it is also possible to investigate other behavioural information such as the use

of personal protective equipment. In an experiment, subjects are randomly allocated to one of the various conditions (randomisation).

*Example:* The size of safety markings is varied and the ability for subjects to distinguish these, dependent on size, is measured.

5. **Epidemiology** is concerned with the frequency and distribution of illnesses in the general population. It studies the causes and consequences which influence this distribution pattern. It also takes into consideration potential future developments in the population. Epidemiological data is collected by conducting descriptive, analytical or experimental studies. Epidemiological key indicators are used in assessing the data. The best known indicators are prevalence, incidence, relative risk and odds ratio. Prevalence is the rate of occurrence of an illness at a particular time. Incidence is the rate of new cases of the illness at a particular time. Relative risk refers to how much higher the risk of illness is when someone is exposed to certain factors as opposed to when they are not exposed to these factors. Odds ratio is an approximate value calculated when the total population used for calculating relative risk is unknown.

*Example:* Relative risk is calculated in order to study whether the probability of obstructive respiratory disease increases for people employed in mining.

### 5.4 Recommendations for designing questionnaires

It is recommended to use standardised questionnaires if these are available for the relevant topic. Information about these can be found by searching online. Standardised questionnaires offer the advantage that the evaluation can be performed according to the instructions provided with the manual, the assessment is tried and tested and it is possible to compare against the normative sample<sup>7</sup>. Questionnaires can be borrowed from the library or purchased; however, if used for commercial purposes it is a legal requirement that they be purchased.

It is important to note that changes cannot be made to standardised questionnaires; this applies to both the questions and the answers. If you wish to develop your own questionnaires, then it is important to differentiate between planning and developing a questionnaire.

#### 5.4.1 Planning

It is important to prepare the topic well and to clearly define which information you are interested in. The question “What exactly is it that I want to know?” should be looked at from as many different angles as possible. Then you need to take into consideration what data is already available, e.g. from oth-

er studies, and what further data is required. Once you have established which information should be collected by a questionnaire, it is important to look at who needs to be surveyed in order to get the right information.

#### 5.4.2 Developing a questionnaire

“A questionnaire is more than just a collection of questions.” As such, the development of a questionnaire involves considering different areas. The first step towards developing a questionnaire is to brainstorm different ideas for the content. The ideas resulting from the brainstorming should be classified by topic, sorted from important to not important and cross-referenced. This makes it possible to develop specific questions. It is also important to write questions that are adjusted based on what the respondent knows about the topic.

#### *Open answers:*

If the respondent knows little about the topic, then open questioning can be used and the answers categorised afterwards. In this situation, the respondent does not have set wording for their answers but rather can answer freely, for example, opinions in their own words, commentary or suggestions. (Advantage: Things might be mentioned that the person who developed the questionnaire might not have thought about).

<sup>7</sup> *Interpreting the values for individuals can be done using norms provided by standardised approaches. Normal values are reference systems für interpreting values. This involves transforming a person's raw data into normal values which requires a representative normative sample. This is then the “benchmark“.*

**Example:** In your opinion, what can we do better next time?

**Alternative answers (categorisation):**

If the respondent knows somewhat more about the topic or if an opinion/assessment is being asked for in differentiated form, then a rating scale can be used (e.g. rating scales from Rohrmann). These structured answers provide the respondent with a selection of already specified answers. The advantage is that more robust statistical analysis is possible and less effort is required to conduct the surveys. The disadvantage is that categorisation means that arbitrary limitations are imposed on expressing opinions.

**Example:** How did you enjoy the event?

not at all	a little	moderately	quite a bit	very much
0	1	2	3	4

N.B. The following is very important when formulating the answers:

**Excursus:**

Basically speaking there is a distinction made between a full survey and partial survey. In a partial survey, only a proportion of people from a relatively large total population are selected (sampling). In a full survey, the entire target group is surveyed. More information about sampling can be found under 5.2.10. *Calculating sample sizes*

- The question and the answer format represent one item.

Question + Answer alternatives = Item

- An item should be unambiguous, i.e. different people understand the question the same way and the answer they give is also understood the same
- A question should be as specific as possible, i.e. avoid terms that can be interpreted differently and instead ask exactly what you mean (use examples if necessary).
- A question should only provide one interpretation, i.e. each question only looks at one fact.
- The answer alternatives must make sense to the respondent in terms of the question being asked.

**Type of categorisation:**

- Decision: e.g. no/yes (0/1); e.g. disagree/agree (0/1)
- Multiple choice: e.g. baker, butcher, cobbler; e.g. safety expert, manager, employee
- Variations in degree: e.g. partially/completely/exceedingly (3 steps); e.g. not at all/somewhat/moderately/quite/very (5 steps); e.g. strongly disagree/ somewhat disagree /undecided/somewhat agree/strongly agree (5 steps)

If it does not make sense to rank an answer, then usually it is enough to use a simple yes/no answer. However, if it makes more sense to differentiate between answers, then usually scaled answers are the best option.

## 5 Lexicon of methods

It is important to look at whether the answer provides only two alternatives (e.g. agree/disagree) or differences in opinion on a scale from 0 to 4 (not true to true). This is dependent on the questions being asked and on the level of detail that you wish to capture.

### *Number and type of answers:*

The possible number of answers on a rating scale should be determined by what best reflects the opinions of the respondents. The most common number of options is five and generally speaking this provides enough differentiation.

It has not yet been empirically proven whether an even or odd number of alternatives is better. However, it appears that an odd number is more widely accepted, is used more often and has been investigated in studies (see below, Rohrmann's rating scales). The advantage of an odd scale (e.g. 5 options) is that something can be rated as average if this is what the respondent really believes. There are no forced decisions, as with an even number (e.g. 4 options), which results in an error variance (variation from the mean due to error). The disadvantage of an odd scale is the "Error of central tendency", that is, many respondents do not like to make decisions and prefer to select the middle option.

**Example:** How much did you enjoy the seminar?

5 categories:				
not at all	a little	moderately	quite a bit	very much
0	1	2	3	4

4 categories:				
not at all	slightly	considerably	extremely	
0	1	2	3	

It is important to use words to describe all of the answers and not just the end points. The numbers (e.g. 0-4) are there to help with the analysis and do not really have any purpose during surveying. The categories should be described at the start of every new page or new section. It is also important to make sure that the distance between the categories is the same (see below, Rohrmann's rating scales).

**Example:** How much did you enjoy the seminar? Please mark your answer with an "x".

not	a little	moderately	quite a bit	very much
0	1	2	3	4

Due to the fact that the answer format is dependent on the type of question and the level of detail you wish to capture, it is possible that there will be different answer formats within a questionnaire. This is not a problem, in fact it actually increases the level of attention; however, it might also result in more time being needed to answer the

questionnaire. For longer questionnaires, it is recommended to change the direction of the answer format in order to avoid response patterns.

### Type of scale:

- Unipolar scales (e.g. 0 to 4) are used when the scale is rated from a zero value to a maximum value on the same pole, e.g. from “not true at all” to “completely true” or from “not good at all” to “very good”. It is a good idea to use the numbers 0 to 4 when working with a unipolar scale rather than 1 to 5 because 0 means “nothing”. This is important for representing and calculating mean values.
- Bipolar scales (e.g. -2 to +2) are used when asking about opposites such as “practical” to “scientific” or “very bad” to “very good”.

**N.B.:** A study by Rohrmann (1978) investigated the most effective labels for rating scales. This original study was in German and a further study (Rohrman, 2007) reported the most effective English labels. It is recommended to use these labels because they have been proven to be equidistant and they make it possible to assess mean values even when used on an ordinal scale.

### Rating scales in empirical social research

Rohrmann, B. (1978). Empirische Studien zur .Development von Antwortskalen für die sozialwissenschaftliche Forschung. Zeitschrift für Sozialpsychologie, 9, 222-245.

Rohrmann, B. (2007). Verbal qualifiers for rating scales – a cross-cultural study (Project VQR) . Report, Dept of Psychology, University of Melbourne, Dept. of Psychology.

F Scale: Frequency:				
--	-	+/-	+	++
never	seldom	sometimes	often	always
1	2	3	4	5
very seldom	seldom	sometimes	often	very often

I Scale: Intensity:				
--	-	+/-	+	++
not	a little	moderately	quite a bit	very much
1	2	3	4	5
not at all	slightly	fairly	considerably	extremely

P Scale: Probability:				
--	-	+/-	+	++
certainly not	probably not	possibly	probably	certainly
1	2	3	4	5

A Scale: Agreement:				
--	-	+/-	+	++
fully disagree	mainly disagree	neutral	mainly agree	fully agree
1	2	3	4	5
strongly disagree	somewhat disagree	undecided	somewhat agree	strongly agree



Q Scale: Quality (bi polar 11-tiered)		Q Scale: Quality uni polar 11-tiered		
extremely good	+5	–	not at all	0
very good	+4	I		1
good	+3	II		2
somewhat good	+2	III		3
more good than bad	+1	IIII		4
average	0	IIIII		5
more bad than good	–1	IIIIII		6
somewhat bad	–2	IIIIIII		7
bad	–3	IIIIIIII		8
very bad	–4	IIIIIIIII		9
extremely bad	–5	IIIIIIIII	exceptional	10

The questionnaire’s scope is a compromise between the research aspirations of the person who developed the questionnaire and how much the respondent is willing to do. It is a good idea to start each questionnaire with instructions, i.e. to tell respondents what the questionnaire is about and how they should answer the questions. A few sentences at the start of the questionnaire regarding the correct method of answering can result in a significant reduction of mistakes. The order of the items is also quite important. Answering certain questions can have an influence on the overall assessment. Questions about the respondent should be left until last in order to allay fears

that the questionnaire is not anonymous. It is important to ensure this anonymity and convey this to the respondent right at the start. In the event that the same person will be asked to answer the questionnaire again, anonymity can be ensured by allocating a code number. Ideally this should be a combination of numbers and letters that is easy for the respondent to remember, for example, first letter of mother’s first name, month of father’s birth, etc.

**Now it’s time to finally start a pre-test!!**

The aim of the pre-test is to use the questionnaire with a small sample group prior to the main survey in order to determine if any possible improvements can be made.

**5.5 Recommendations for conducting standard interviews**

The idea of an interview is for an interviewer and respondent to have a conversation about the topic of interest. The interviewer asks the questions verbally and makes notes about the respondent’s answers. The interview should collect personal information, facts, opinions and attitudes. The interview can be conducted in standardised, semi-structured or unstructured form depending on the level of the questions and their sequence.

Standardised interviews refer to a situation where the order of the questions is set, the interviewer predominantly uses closed questions/statements and the respondent has

set answers they can give<sup>8</sup>. They are used for fast and uncomplicated collection of information, e.g. by supervisors as part of a workplace prevention campaign.

The aim of standardised interviews is to establish the same conditions for all respondents so that their data can be compared. As mentioned above, it is essential that the questions and answers are pre-set. The order of the questions must be fixed as well. The end result is that all interviews are conducted in the same manner.

### **Interviewer neutrality**

The interviewer must show absolute neutrality when working with the respondent. This

means that under no circumstances should they express their own opinion on the topic or on particular questions. They should also not influence the respondent's answer or anticipate an answer. Generally speaking, the interviewer only has to use friendly eye contact or nod their head in order to encourage the respondent to answer. In order to ensure that the answers are not distorted, the interviewer should read out every question and the possible answers slowly, precisely and completely before the respondent answers. If a question is answered on a scale (e.g. from "agree" to "disagree"), then the respondent can look at the questionnaire and mark their answer with a cross (ideally sit at the table corner).

It is possible that during the interview there might be some distractions or disturbances. The most common of these are:

*Respondent has problems understanding the question/answers:*

- Repeat the entire question or part of the question.
- Explain any terminology that will help the respondent to understand the question.

*The respondent cannot make their mind up about an answer:*

- As the interviewer you can ask: "Which answer comes closest to reflecting your opinion?"
- Please do not put a mark between two answers – direct the respondent's attention to the answers provided!

*The respondent gives an evasive answer:*

- You should not accept an evasive answer immediately. You should ask at least once more. Try also to use phrases such as:
- "Have a think about it"
- "Think about a particular situation."

*The respondent does not want to answer a question:*

- Try and build up trust, for example, by reassuring the respondent that everything is anonymous:
- "I can promise you that everything said in this interview is confidential."
- If this is not successful, then you simply have to accept their wish not to answer!

<sup>8</sup> Open questions give the respondent the possibility to answer freely.

*The respondent's answer is difficult to understand:*

- Delve a little deeper by asking things such as:
- “What do you exactly mean by that?”
- “Could you explain that to me a little bit?”

### **The interview procedure**

The following procedure is recommended when an interviewer is preparing and conducting an interview:

- *Preparation*
- Make telephone contact with the respondent, ask when is a good time to talk without interruptions, information about the purpose and length of the interview
- *Warm up*
- An important step is to make personal contact and to create a positive relationship (e.g. greeting, introduce yourself, small talk)
- *Talk about the interview:* Explain the aim/purpose of the interview, key topics, length of the interview
- *Conduct the main interview* using the pre-written questions in the order they appear on the questionnaire
- *Conclude the interview*
- Thank the respondent for their time, ask if they have forgotten anything of importance, ask if they have any other questions, explain any further processes
- *Follow-up work*
- Think about the interview and note any possible improvements for next time

Social science research has shown that sitting at right angles at the corner of a table is

particularly effective at developing trust with the interviewee. So whenever possible try to organise this type of set-up.

It is also very helpful to develop a guideline for the interviewer with information about how to conduct the interview. There is an example of this below and this can be customised for your own interviews.

### **5.6 Suitability of accident figures as an indicator of a campaign's effect**

*What is the issue?*

Accident figures and workplace illness figures are often preferred as indicators for assessing effectiveness of nationwide prevention campaigns. This assumes that a drop in the number of workplace accidents and illnesses reflects improvements in workplace safety. These changes should be visible in the medium term using statistics relevant to the campaign. However, there are numerous reasons in terms of content and methodology why these statistics should be

used cautiously as criteria for a campaign's effectiveness. What are these?

#### *1. Many contributing factors*

Generally speaking these statistics are the result of many factors. Let's take the example of traffic accidents: These are influenced just as much by the weather, other drivers' behaviour or the road quality as they are by the insured driver's own behaviour. Other contributing factors outside the sphere of the preventive measure include: economic

conditions, quality of the accident data, legal regulations, other preventive measures and other road safety measures at federal, state and local level, and natural statistical fluctuations. It is not known how these other factors interact and how they influence the

occurrence of traffic accidents. In principle, this example can be applied to statistics in other situations.

Guidelines for conducting XY Interview	
<b>Greeting and introduction</b>  sit at corner position if possible	<p>Hello (<i>respondent's name</i>) My name is (your name) from (your organisation's name). I'd like to thank you very much for making time for this interview today. It would be great if we could sit at the corner of the table. That way you'll be able to see my paperwork better and it will be easier for you to rate some items later.</p> <p><i>N.B. The use of either first names or surnames is culture dependent and should be adjusted according to your culture.</i></p>
<b>Topic</b>	<p>(<i>Your organisation's name</i>) is currently running the XY prevention campaign. The aim of the campaign is ... To help with this, what we would like to find out is ... So thanks once again for making time today, so that we can look at ways of adjusting and improving the campaign and as a result better meet your requirements.</p>
<b>Privacy protection</b>	<p>In order to get the most accurate results possible, I would like to ask you to answer all of the questions truthfully. Your information is anonymous and will be treated in strictest confidence. It is not possible and nor do we want to make conclusions about individual people or companies being surveyed.</p> <p><i>At this point you can give the interviewee a privacy policy from your organisation if you have it in printed form.</i></p>
<b>The interview procedure</b>	<p>I have brought a questionnaire for the interview which consists of X parts. Most of the questions are simply answered with an "X" and I will fill out your answers in the questionnaire.</p> <p>The questionnaire covers the following topic/s: 1) General information about the company 2) etc</p>
<b>Duration</b>	<p>The interview will take about X minutes. Do you have enough time for this?</p> <p>At this point do you have any questions? OK, if you don't have questions/any further questions, then we can begin.</p>

...conduct interview...

2. *Statistical accuracy*

Often statistics are extrapolated based on figures from a sample and do not come from a complete survey. After all, from a statistical point of view, accidents rarely happen. In addition, campaigns often run for too short a period of time (between 2 and 3 years) to be able to find the “average” number of coincidental fluctuations in accident statistics. Yearly fluctuations in relativised accident figures (without campaign influence) are in the range of 1 to 4 per cent. This means that changes could not be conclusively attributed to a campaign. When applied to other countries, it is important to determine the accuracy of each country’s own statistics so that weaknesses in the data are laid open and a limit is set to the interpretation.

**What to do instead?**

- 1. *Produce controlled experimental/quasi-experimental test conditions:*

The arguments above do not mean that accident and illness figures are completely unsuitable for campaigns. It should be possible to evaluate the effectiveness of individual preventive measures by creating experimental/quasi-experimental test conditions with: 1) representative sampling, 2) a controlled experimental design with significantly more individual data, and 3) on-site financial and human resources. It is important to define the accidents that the campaign can actually influence (e.g. head injuries for a campaign whose aim is to increase the number of people wearing a helmet).

However, this requires careful planning, a longer lead-in time, more human resources and greater understanding of experimental planning. Within such a context, statistical changes represent a significant result and play an important role in external communication. This approach often requires significant funds. Therefore, it is important not to lose sight of the fact that an evaluation should not cost more than 3-10% of the total budget allocated for a preventive measure.

- 2. *Think about the actual goal of campaigns*

Primarily campaigns focus on behaviour and conditions – based on the following effect chain:

- 1. **Awareness and understanding** of dangers and the possibility to prevent them
- ▼
- 2. **Attitude** towards risk and safe behaviour
- ▼
- 3. Safe **conditions** and safe **behaviour**
- ▼
- 4. Reduction in **risks of accidents, workplace illnesses** and **work-related health hazards**
- ▼
- 5. **Number and severity of accidents...**
- ▼

Based on this effect chain, it is possible to measure the effectiveness of campaigns with regards to the following important contributing factors: acceptance, ease of

understanding, awareness, emotional connection, knowledge, attitude, and behaviour. All of these can influence the occurrence of accidents. This is the preferred method of assessing the effectiveness of campaigns. As a rule, the factors that contribute to accidents taking place can be determined by establishing an effect model for a campaign. For more information, please refer to chapter 6.3 *Phase model of campaign effect* where this type of model is described.



# 6 Tips and tricks

## 6.1 Tips for designing prevention campaigns

1. **Think about what you want to achieve with your campaign and set concrete goals.**

A campaign should always be goal-oriented and these goals should always come from the basic assumptions made about the effect of a campaign.

2. **Carefully define your target groups and get them actively involved.**

Fundamentally, a campaign should always reach a large audience. However, in order to have the greatest effect, you should decide which target groups the campaign should focus on. It is important to work out which topics are relevant for the target groups, how much the topics affect them, how they behave and where they stand with respect to certain political events, media, etc.

3. **Develop and use high quality messages, sources and communication channels**

Choosing the right communication channels, campaign messages and sources for a campaign should always be done with the target groups in mind because these factors have a strong influence.

### The message

It is important to try and always use messages that are current and in tune with the zeitgeist of the target group. In order to develop effective messages, it is important to look at the target group, the topics that are socially relevant and the problem of suitably addressing them. Campaigns that motivate people must make clear statements about why and how something can be achieved and provide clear messages regarding strategies. The final decision of whether a message is rational, emotional, action-oriented or persuasive also depends on the target group/s. Generally speaking, informative messages are more suitable than emotional messages even when trying to create a sense of empathy. Messages with a call to action are practical because they encourage the audience to change their behaviour in the desired direction. Either way, messages should definitely be clear and simple.

### Communication channel

A campaign needs to use a variety of communication channels which should be integrated into the overall concept. Getting the message across should be done via a communication channel that is relevant to the target group. A campaign's effectiveness can be increased by using well-known and reliable sources (e.g. using a testimonial or publication from selected media). Mass



## 6 Tips and tricks

media plays an important role in conveying facts and information or in raising awareness of an issue.

Effective campaigns use a mix of media including print, radio and TV advertising, public relations, special events and promotional events. These are often done in co-operation with professional advertising agencies.

### 1. Spreading the campaign message

To have an effective campaign message and to reach the target group it is important to repeat the message (but always with a little bit of something new) and to do this over a longer period of time. Campaigns need to have the power to get through to their audience – so advertising needs to be regularly seen by the target group. The more often a message is seen or heard, the higher the chance that it will change beliefs, attitudes

and behaviour. Long-term campaigns have a greater success rate than short-term ones. Nevertheless, campaigns should be run for a limited period of time.

### 2. Create a variety of measures for the campaign with specific applications

There should be a variety of innovative measures so that the target group is addressed via different modalities from all sides (images, language, experiences). The measures should have a specific application.

### 3. Encourage interpersonal communication about your campaign

You should aim to maximise public awareness in order to encourage discussions and public debate. If a campaign message is well-constructed then it will be often be spread by opinion leaders. Interpersonal

#### *Excursus: Campaign duration*

A one-time information drive only works with people who are actively involved in OSH. They are convinced of the merits of a drive or campaign and are able to quickly move on to the implementation phase. The information channels and resources fit well to their way of working and company culture. However, other recipients of the information such as employees and business owners need repetition, more persuasion and more time to organise themselves. Hence, many campaigns often

finish too quickly – an information drive or campaign needs more time. It has been proven worthwhile to provide a longer lead-in time to the people being targeted, for example, by giving them more chances to get involved in the programme.

**N.B.:** There is a danger, however, that campaigns can quickly suffer from saturation. To avoid this, the elements of the campaign should be spread out in stages and also introduce something new (e.g. one core topic but targeted to different industries over a period of 5 years).

communication can be very important when it comes to encouraging or maintaining changes in behaviour. The more people speak about a campaign, the more likely it is to result in behavioural change. The media can also assist with encouraging debates about the campaign.

#### **4. Initiate changes in the behaviour, opinions, attitude and feelings of the target group**

Changes can occur in terms of attitude, behaviour or even the level of knowledge in the target group. The success depends on an exact characterisation of the target group and society. This includes considerations such as: “How easily can the target group’s attention be drawn to the campaign?”, “Are people talking about the campaign topic?” and “How willing are people to change their behaviour?”

Mass media can be effective in improving knowledge and creating awareness of a topic but less effective at changing behaviour. Firstly, knowledge should be improved, then attitudes changed and finally behaviour changed. The desired changes in behaviour do not necessarily remain and generally speaking they need to be reinforced in order to be maintained over the long term.

#### **5. Work in cooperation with others and use strong promoters and networks**

It is important that the campaign is strongly supported by its own decision-makers (management, board, etc). The right cooperation

partners (agencies, the press, ministries) are also important in promoting a campaign.

#### **6. Organise a clear team of campaign coordinators and get buy-in from all sides**

Involve the various people involved in running the campaign as early as possible, provide them with information and training, and explain what their responsibilities are. A small, fixed team with good industry knowledge and creative spirit has proven to be very successful.

#### **7. Involve influential people from the workplace early on**

Key people in the organisation who act as information disseminators and mediators (e.g. OSH officers/safety experts) should be notified early on so that the situation can be clarified internally and budgets for supplementary activities can be freed up. Also important: contact suppliers/partners in enough time, e.g. so they can supply campaign materials on time for the start. It has been proven beneficial to make advance contact with the “top brass” in the target companies and/or associations. This increases the amount of attention given to the campaign in these companies. It has also been shown that getting buy-in from model businesses is quite a successful strategy as they set an example for other companies and cause a snowball effect.

#### **8. The campaign as part of an OSH system**

It is fundamentally wrong to believe that simply sending information is enough to

cause the desired changes in behaviour in the target groups. Even purchasing safety resources (e.g. videos, safety signs, etc) cannot save you the hard work required to reach and maintain a certain level of occupational safety and health. In order to make sure that an awareness campaign is more than just a flash in the pan, it has to be seen as an integrated part of a comprehensive OSH structure. Furthermore, it has to be taken up by the OSH manager/officers and it has to support them in their work. Generally speaking, safety campaigns have the side effect of stimulating occupational safety in those

companies which are actively involved in the campaign.

### 9. Support from an umbrella campaign for complex campaigns

Campaigns can also get a head start if an umbrella campaign already exists. This is the case if the umbrella campaign takes on certain central control functions; organises materials, marketing activities, media interaction and design; and makes their people available. This provides the campaign with a high recognition value.

#### *Excursus: Issues with small businesses*

In small businesses with a less-developed safety culture, the reach of a campaign is rather low. On-site practitioners (supervisors, safety engineers, etc) know that drives and campaigns are most likely to succeed in those companies which already have a degree of safety organisation and safety culture. Large companies which employ a full-time OSH person are better able to implement a campaign than small and medium businesses where safety is a side role for an employee with a different full-time occupation. In large companies, OSH personnel see every campaign as a way of making their job easier.

The issue with small businesses is not only the lack of time but also the lack of expertise. The willingness to spread a safety message in small businesses is noticeably

less due to the completely different structure of their human resources. It is often the case that the owner or their spouse takes on the role of “safety expert”. This is one of their many responsibilities and often one of the less important ones in their day-to-day business. They often do not see it as paying off (“Everything’s been fine so far without it!”). For small business owners, the first thing they often think of when they think of safety campaigns is more work and effort.

“Motivators” and “messages” that are situation-dependent often play an important role. It is better to provide information via more local, interpersonal communication channels and not via mass media from “experts”. It needs a supportive environment in order to take hold and be maintained. This is similar to a snow-ball effect.

## 10. Learn about the effect of the campaign through evaluation

Evaluation is important because it can contribute to improvements in the campaign's effectiveness. Evaluation can assist in developing more targeted messages which can lead to changes in behaviour. As such, assessing the effectiveness of a prevention campaign demands a complex evaluation concept at various levels and which uses a combination of formative and summative approaches of evaluation.

### 6.2 Outline of functional and communication plan

1. Campaign goals
2. Target groups relevant to the campaign
3. Campaign design (e.g. campaign logo, campaign statement, campaign motif, corporate design guidelines)
4. Planned measures: communication paths and methods (mass media and dialogue-oriented)
5. Evaluation
6. Contact people

### 6.3 Phase model of campaign effect

A very good effect model for campaigns is the phase model of campaign effect (in Singhal & Rogers, 1999 based on Rogers, 1995; McGuire, 1989). This describes the entire process: campaign presence, media presence, awareness, acceptance, assessment, changes in attitude, changes in behaviour and behaviour becoming routine. The phase model describes a 5-phase process in the target groups from becoming aware of the in-

formation being communicated to taking on the desired safe behaviour (see Figure 4).

In each phase, cognitive, emotional and dispositional factors are presented in a linear sequence which determines the occurrence of the safe behaviour being recommended. The postulated tiered-model of campaign evaluation can be better integrated with such a comprehensive effect model because the individual effect levels can be assigned to each of the evaluation tiers.

#### 1. Information phase:

The idea here is to get the core information of the campaign's key areas across to the target groups using mass media and information disseminators while making sure that there is sufficient spread and momentum. This focuses the attention of the target groups on the core messages so that they are consciously aware of them and that they understand and accept the information being communicated. Acquiring this knowledge allows them to change unsafe behaviour.

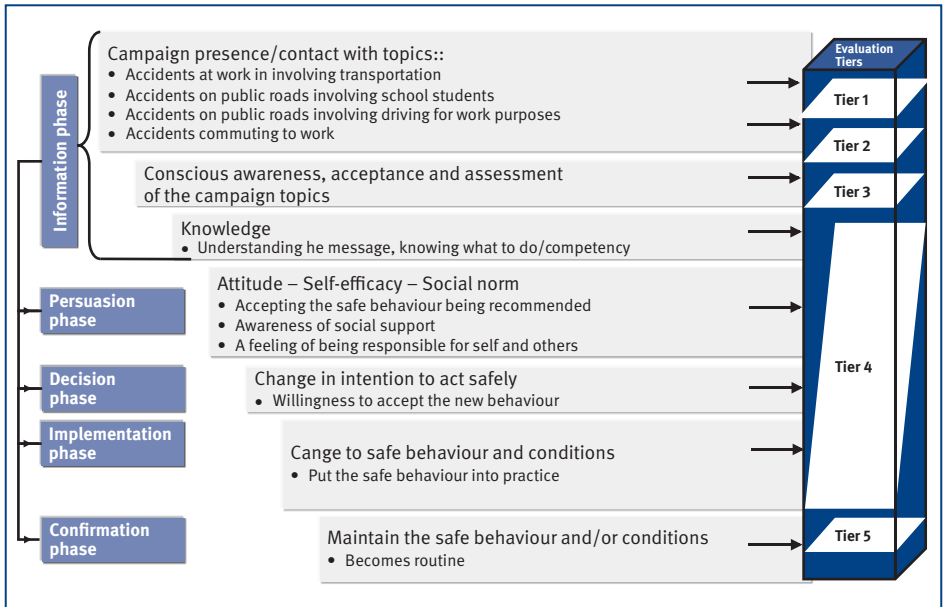
► *Relevant evaluation tiers: campaign presence (1), media presence (2), awareness (3)*

#### 2. Persuasion phase:

In this phase the target groups gain a better understanding of the ways they can implement safer behaviour. This assumes that they agree with the information communicated by the campaign and are interested in it. The probability of this safe behaviour receiving social support is increased if the cam-

## 6 Tips and tricks

Figure 4:  
Phase model of campaign effect based on McGuire and Rogers



campaign contents are widely accepted by the groups being targeted. This also increases the willingness of people to take on responsibility for themselves and for others. The next step involves the target groups developing the ability to behave in a specific way and to assess whether they are in a position to implement this behaviour (self-efficacy).

► *Relevant evaluation tier: Change tier (4)*

### 3. Decision phase:

If the target groups are convinced about the recommended behaviour, they develop a be-

havioural intention which is either the wish to change unsafe behaviour or to consolidate safe behaviour.

► *Relevant evaluation tier: Change tier (4)*

### 4. Implementation phase:

The safe behaviour becomes part of the target group's behavioural repertoire and they test it.

► *Relevant evaluation tiers: Change tier (4), cost-benefit analysis (5)*

## 5. Confirmation phase:

In this phase the advantages of the new behaviour are highlighted by the target groups, the behaviour is repeated and it is justified to others.

- ▶ *Relevant evaluation tiers: Change tier (4), cost-benefit analysis (5)*

According to McGuire (1989), the individual steps in the phases which lead to long-lasting safe behaviour are in an effect hierarchy: only 50 percent of the target audience remembers the campaign message; half of those understand it; half of those see the message as relevant; half of those change their attitude; half of those acquire a new way of behaving; and finally half of those maintain this behaviour. Therefore, the point at which individuals take on the communicated safe behaviour generally varies.

It is important to note that none of the effect models for evaluating campaigns take into consideration process-related effects. This impacts the “Quality of the campaign structure and processes” tier. This tier does not deal with issues relating to the target groups but rather is predominantly used for the continuous improvement of the campaign structure and its processes. It is well-suited for quality assurance and for looking back at the results gained from all evaluation tiers. Thus, it is a vital part of evaluating a campaign and must be supplemented when used for the tiered model of evaluation.

## 6.4 Tips for planning and conducting the evaluation

Evaluation experts agree that the following factors assist in planning and conducting a campaign evaluation<sup>9</sup>:

- Definitely try to do a pre-measurement.
- Form a small working team from within your organisation.
- Use past experience in planning your evaluation, e.g. which collection methods have been worthwhile in the past?
- Which questions elicited the most information and best insights?
- Use motivators with your surveys, e.g. organise the chance to win a prize by completing a questionnaire
- Survey different groups, e.g. labour inspectors, technical inspectors, safety experts, management, employees.
- Decide which are the relevant industries, i.e. place the main focus of the evaluation on those industries most at risk.
- If you cannot guarantee a dependent sample, then for blanket campaigns you have the possibility of doing a pre-test/post-test measurement with independent samples.
- Win over employees by making it transparent why you are doing the survey.

However, evaluating a campaign is not free of pitfalls. We know from past experience with campaign evaluations that the following factors have to be dealt with carefully:

<sup>9</sup> Results from a workshop evaluating the Healthy “Skin“ prevention campaign: 6-7 March 2007

*Determining the scope of the evaluation:* It is important to keep a balance between scientific rigour and practicality when gathering information. The effort required for the evaluation should also be dependent on the benefit it brings to the stakeholders. The rule of thumb is to only collect information that can be used further. Don't forget that sometimes less is more, that is, set your priorities for what needs to be evaluated and conduct this methodologically.

*Getting supervisors and labour inspectors involved in the evaluation* requires the art of persuasion because these people often have a double role – campaign co-ordinator and interviewee. In this situation you should find a representative for your evaluation team who can express the wishes and opinions of the people involved.

*Resistance from people due to false/high expectations about the results:* Broach the issue of false expectations early on in the campaign. Think about the effect hierarchy which results in only a part of the target groups actually changing their behaviour due to the

information provided by the campaign. In reality, this effect hierarchy depends on the individual prevention measures and can be more or less dramatic. You can also try to widen the goal of evaluating the campaign to more than just “success”. (see *Excursus: 5.2.4 Determining the purpose of the evaluation*)

*No direct influence over businesses using the evaluation results:* Talk with the evaluation team about issues relating to how the results can be used further. Also make sure to involve the stakeholder here. After announcing the results, try to organise a workshop with key stakeholders where decisions can be made regarding who is responsible for making use of the results.

*Good measures cost a lot of money:* The effect of your campaign is also dependent on the quality and directness of your communication with the target groups. It is very important that the campaign reaches the groups most at risk. Focus on using fewer but more effective measures.

# 7 Checklists and templates

## 7.1 Establishing an information management system

Evaluation Tier	Information relevance	Stakeholder	Method	Timing
e.g. media presence	Media response to communication with the public	PR people	Statistical graphs	monthly
campaign presence	Scope and type of campaign measures for determining priorities	Prevention experts Works council	Tabular report of the figures	quarterly
...	...	...	...	...
...	...	...	...	...

## 7.2 Checklists and resources on the Internet

<http://www.socialresearchmethods.net/kb/intreval.htm>

This website was written by Professor William M.K. Trochim and provides a very good introduction to the topic of evaluation. It gives clear and concise information about definitions, goals, models, forms and typical methods of evaluation. There are also a series of tutorials about evaluation methods.

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

This website from the “Evaluation Capacity Development Group” deals with the concept of evaluation systems in complex organisations and the questions of why, when, where and how an evaluation is done. Of particular interest is the ECDG Toolkit which can be

located under the “Products” link. Some of the material must be purchased for a nominal fee but there are also some downloads which are free.

<http://www.europeanevaluation.org/>

The goal of the European Evaluation Society (EES) website is to promote theory, practice and utilisation of high quality evaluation. The website offers a wide range of advice on general standards for evaluation as well as links to the evaluation standards in various countries. In addition to information about the EES there is also a news section, a community area, an evaluation glossary and an events calendar.

<http://www.sustainability.at/easy/>

This site was created by the “Research Institute for Managing Sustainability” and



amongst other things contains a summary of interesting links and downloads (some with a fee) about evaluation and sustainable developments.

<http://www.hfrp.org/evaluation>

<http://www.hfrp.org/evaluation/publications-resources/a-user-s-guide-to-advocacy-evaluation-planning>

<http://www.hfrp.org/>

This site from “Harvard Family Research Projects” offers a wide range of information in the field of research. Included in this is information about work in the field of evaluation. As well as providing information about projects, standards and current issues there is a “Publications and Resources” section with a series of interesting publications available for download. Included in these is “A User’s Guide to Advocacy Evaluation Planning”.

<http://www.daretoshare.ch>

This site is part of the “Swiss Agency for Development and Cooperation” and is devoted to the exchange of information and to knowledge management. There are short and concise descriptions of various methods as well as links to other sites about methods. This site is available in English, German, French and Spanish.

<http://www.univation.org>

The Institute for Evaluation Dr. Beywl & Associates GmbH has produced this website. The English version of the site provides somewhat limited information. However, the German version provides comprehensive information, downloads, checklists, glossary, standards and related links.

<http://www.uwex.edu/ces/pdande/sitemap.html>

The University of Wisconsin offers a diverse website that includes comprehensive information about programme evaluation. It provides information on standards for programme evaluation as well as tips for optimising this form of evaluation. You can also find studies, tools, quick tips, standards and information about training and workshops on the topic of evaluation.

<http://www.hse.gov.uk/research/>

On the “Health and Safety Executive” website under the heading of “Research” you can find all sorts of useful information including a “What’s new” section with the latest in scientific news. You can also find a database where you can search for research papers that have been written under rigorous scientific criteria. There is also a reference list of research reports.

<http://www.wmich.edu/evalctr/checklists/>

This website from Western Michigan University aims to advance the theory, practice, and utilisation of evaluation. Of particular interest is their “Checklists” section which includes items such as evaluation management, evaluation models, evaluation criteria, meta evaluation and checklist creation.

[http://www.bj.admin.ch/bj/de/home/themen/staat\\_und\\_buerger/evaluation/materialien\\_.html](http://www.bj.admin.ch/bj/de/home/themen/staat_und_buerger/evaluation/materialien_.html)

The Swiss Confederation provides a set of useful materials for evaluation including checklists and online literature. This information is only available in German, French and Italian.

[http://www.pr-evaluation.de/naL\\_en/](http://www.pr-evaluation.de/naL_en/)  
evaluamus GmbH offers the full spectrum of PR evaluation from A to Z. Their services include consultation, establishing your evalu-

ation needs, performance analysis and even an Excel spreadsheet for charting media response.

### 7.3 Template for documenting campaign presence

The parameters from Table 5 can be entered into an Excel spreadsheet and used with sub-categories to document the measures that are a part of your campaign.

Table 5:  
Analysis parameters and sub-categories for documenting prevention campaigns

Analysis parameter	Sub-categories
Stakeholders/People involved	Name of the stakeholder/person involved
Campaign goal	Please enter the goal/s that you are trying to achieve with your campaign.
<b>Details of individual measures:</b>	
Campaign goal	Please enter the goal/s that you are trying to achieve with your campaign.
Top-level category: Type of measure	Please specify what type of measure you implemented. <b>Top-level category: Activity, Media/materials, Marketing</b>
Sub-category: broken down description of the type of measure	<p>Please specify the sub-category of the measure you implemented.</p> <p><b>Regarding activity:</b> e.g. consultation/inspection at workplace, talk/meeting/conference, health day/event at workplace, game/quiz/competitions, exhibit at trade fair, own off-site events, public event, mailout, telephone campaign, inspections, seminar, research project, press conference, posters/billboards, other</p> <p><b>Regarding media/materials:</b> e.g. CD-Rom, DVD, film/video, flyer, posters, billboards, , radio play, radio/TV articles, brochures, books, pictures, tools/checklists, training material, devices, publication, database, info-sheet, internet, other</p> <p><b>Regarding promotion:</b> e.g. give-aways, stickers, calendars, other</p>
Number of similar measures that have been implemented	Please keep a running tally of how often you have implemented measures with this title
Scope	<p>Please specify the total scope of your measure (specify sum of all similar measures).</p> <ul style="list-style-type: none"> <li>• Activity: Total number of people reached (the number of participants, listeners, viewers, etc)</li> <li>• Media/materials: Circulation figures, downloads, amount of access, amount ordered</li> <li>• Promotion: amount ordered, amount distributed</li> </ul> <p>If you cannot specify the scope, for example, for research projects, please write NA for Not Applicable.</p>

Analysis parameter	Sub-categories
Most common target groups	Please specify the groups you most commonly target as specifically as possible. <ul style="list-style-type: none"> <li>• e.g. general public, insurance policy holder, special target groups/industries – e.g. cyclists, workers who unload goods</li> </ul>
Cooperation partners	Please specify the names of the institutions/organisation with whom you cooperated. <ul style="list-style-type: none"> <li>• e.g. universities, clubs, other associations, ministries, agencies, sponsors, publishers, traffic safety institutions, institutes</li> </ul>
Most common location	Bitte geben Sie die häufigsten Orte der Maßnahmen an. Bundesweit oder z.B. Region München ?? <b>Übersetzung ??</b>
Comments/Notes	Is there anything particular about the implementation that you wish to comment on? <ul style="list-style-type: none"> <li>• Feedback about the activity and its effectiveness, recommendations, experience</li> </ul>

### 7.4 Template for documenting media presence

The following analysis parameters can be used in an Excel spreadsheet to evaluate response from the media (media resonance). Depending on how much detail you want to have, you can adjust the number of parameters:

Table 6:  
Analysis parameters for media response

Analysis parameter	Description
Name	Name of media, i.e. name of the newspaper, magazine, website including local edition
Newspaper/magazine group	Name of media without further details about location, i.e. for multiple local editions only give the name of the newspaper group
Title	Title of the article
Mentions	Counter used for creating Excel tables. (Always use a 1 here for counting purposes)
Serial number	Number assigned to the clipping. (In addition to entering the information into the Excel spreadsheet, the mentions should also be neatly filed. For each mention, you should assign a unique number)
Type of media	<p>The type of media in which the campaign/measure is mentioned. The following categories are used for the type of media:</p> <ul style="list-style-type: none"> <li>• Print media</li> <li>• Online media                             <ul style="list-style-type: none"> <li>– in general media</li> <li>– in online publications of the campaign organisers. New information that appears on one page of a website is individually counted</li> </ul> </li> <li>• Programmes that appear on TV as part of the campaign</li> <li>• Radio programmes that are broadcast as part of the campaign</li> <li>• Own magazines produced by the campaign organiser</li> <li>• Any videos that are published by the campaign organisers as part of the campaign.</li> </ul>
Press filter	<p>This filter shows whether a report/mention is actually covered by the press or is only an activity of the campaign organisers (e.g. organiser’s website or own magazine). Every mention should be checked for this.</p> <p>Press = the mention can be attributed to a member of the campaign team</p> <p>Not = the mention can not be attributed to a member of the campaign team</p>

Analysis parameter	Description
Name of person responsible	The name of the person responsible is entered here if there are multiple members in the campaign team.
Press releases	The frequency of the press releases appearing in the media is documented here. It refers not only to articles that repeat the press release verbatim but also articles/reports where the contents are predominantly the same.
Major activities	If the article/report refers to one of the major activities planned, then it is recorded here.
Circulation (total)	This cell is used to record the total circulation of the print media which the clippings came from. This information is either stated in the publication or can be found on the Internet (may require purchase). This varies from country to country.
Circulation (limited)	This cell is used in the event that a national newspaper prints regional editions. Only the circulation of the editions in which the campaign is mentioned should be entered here.
Readership	This records the total number of people who read a newspaper. Readership figures are usually higher than circulation figures because more than one person often reads a newspaper copy—at home, work or in a public setting like libraries or waiting rooms.
Advertising equivalent	This converts the size of the article into the equivalent cost if it was paid advertising in the same publication.
Page/position/section of each clipping	This records the section of the paper where the article appeared, whether it was the front page or towards the back. This assists with estimating the probability that the article was seen and read.
Article environment	This cell records the articles and topics that appeared near the mention and is used for qualitative purposes.
Region	The region is recorded here. In Germany, for example, this is the state in which state the publication appears. If the article appears in a national publication then this should be entered as “National”. Publications that do not neatly fit into either a region or national should be entered as “Other”.
Regional/national	This simply records whether the publication in which the article appeared is regional or national.

Analysis parameter	Description
<p><b>Type of publication</b></p>	<p>The type of publication refers to whether the article appears in a newspaper, magazine, etc. Categories include:</p> <ul style="list-style-type: none"> <li>• Newsletter</li> <li>• Consumer magazine</li> <li>• Trade magazine</li> <li>• Advertising paper</li> <li>• Newspaper</li> <li>• Association/Club magazine</li> </ul> <p>Any print media that do not fit into one of these categories are entered as “Undefined”</p>
<p><b>Month</b></p>	<p>The month and year that the article appeared. E.g.:</p> <ul style="list-style-type: none"> <li>• Jan 10</li> <li>• Feb 10</li> <li>• Mar 10</li> <li>• etc.</li> </ul>
<p><b>Appearance date</b></p>	<p>This is the exact date (day/month/year) that the campaign was mentioned. If the exact date is not known, then this cell is left empty.</p> <ul style="list-style-type: none"> <li>• 23 Mar 10</li> <li>• 07 Apr 10</li> </ul>
<p><b>Publication frequency</b></p>	<p>This cell records how frequently the publication appears. The categories are:</p> <ul style="list-style-type: none"> <li>• daily</li> <li>• weekly</li> <li>• monthly</li> </ul>
<p><b>Audience in millions</b></p>	<p>If the campaign is mentioned on a TV/Radio programme, then the audience figures are entered here.</p>
<p><b>Time</b></p>	<p>The start time of the TV or radio programme is entered here.</p>
<p><b>Duration in minutes</b></p>	<p>The duration of the TV or radio programme is entered here in minutes.</p>

## 7.5 Questions for scoping out evaluations

### 1 Subject of the evaluation

- 1.1 What does the measure consist of?
- 1.2 What are the elements of the measure and what is the topic?
- 1.3 How are the measures implemented in the company or how are they supposed to be implemented?

### 2 Goals of the measure

- 2.1 What are your goals for the measure/s?
- 2.2 What are your subgoals for the measure/s?
- 2.3 What is not supposed to happen because of the measure? (unwanted or unintended effects)

### 3 Target group

- 3.1 Who is the measure targeting? Who is using the programme and who benefits from the measure?
- 3.2 Who could also be reached with the measure (side effects)?
- 3.3 How is the measure delivered to the target group?
- 3.4 How does the target group work with materials provided by the measure?

### 4 Purpose of the evaluation

- 4.1 Why do you want to conduct an evaluation?
- 4.2 What do you want to know about the measure?
- 4.3 How are the results of the evaluation going to be used?
- 4.4 What results/effects do you expect from the evaluation?

## 5 Determining indicators

- 5.1 What should be present at the end of the evaluation/what should be different?
- 5.2 What should happen to the target group as a result of the measure?
- 5.3 How would you recognise that the measure has benefited the workplace?
- 5.4 How could you recognise that the desired results have manifested themselves in the target group/s? What is different now?
- 5.5 At what point can you say a goal has been met? What value should you assume for the indicator?

## 6 People involved

- 6.1 Who will use the evaluation results?
- 6.2 Which organisation is the actual client?
- 6.3 Who are the people involved in the project?

## 7 Planning a methodological approach

- 7.1 What time frame has been set for the project? When should it take place? Start – End?
- 7.2 Sampling
  - 7.2.1 How many companies are involved? Where are these companies? Should all of them be surveyed? Or sampled instead? Do the companies have to be personally selected?
  - 7.2.2 Who is going to recruit people for the sample?
  - 7.2.3 What is the best way to reach the target group?



## 7 Checklists and templates

7.2.4 Who can guarantee access to the companies? Do the companies support the project? Do you have full address details? How do we get contact details?

### 7.3 Methodology

7.3.1 Which methodology is best suited for the target group (questionnaire, online survey, interview, a mix)?

7.3.2 Who puts the tools together? Who does this have to be coordinated with?

### 7.4 Presenting the results

7.4.1 What analysis do you want to do? Means, frequency or even group comparisons?

7.4.2 Suggest possibilities for optimisation, if available?

7.4.3 How should the results be made available? (PowerPoint, graphs, reports)? And when?

## 8 Preliminary work

8.1 Has preliminary work been done on this topic?

8.2 Can I draw on past experiences or data from similar measures to the one being evaluated?

8.3 Are there other sources of helpful information available? (e.g. statistics, publications) Examples of campaign evaluations from other institutions?

# 8 Country examples: Germany, Switzerland, Austria

## 8.1 Germany, DGUV: “Healthy Skin” Prevention Campaign

### Overall context of the campaign

The “Healthy Skin”<sup>10</sup> prevention campaign was a joint project of various statutory accident insurance and statutory health agencies together with partners such as the German federal states and various trade associations. The main goal was: “Healthy skin – fewer skin disorders”. The main slogan was: “Your skin – the most important 2 m<sup>2</sup> in your life”.

The target groups were people insured by the insurance agencies and also large segments of the general public. The Healthy Skin prevention campaign consisted of an umbrella media campaign involving all institutes plus individual campaigns aimed at specific target groups which were run separately by the individual institutes.

### Goal of the campaign

The focus of the umbrella campaign was to raise awareness in the general public about the topic of healthy skin, related hazards and options for preventing skin diseases by making people aware of how they can change their behaviour.

### Target groups

The target groups were people covered by the German health and accident insurance agencies. This included insured employees, children, young people, students and also people not in employment.

### Measures

As part of the umbrella campaign, a variety of activities were implemented using various communication platforms. Included amongst these were: involvement in large public events (e.g. Germany’s largest city marathons in Hamburg, Cologne and Berlin), a joint Internet website, telephone hotlines, billboards, posters, a variety of materials (e.g. movies, brochures for various target groups, almost 40 images for different situations, trade fair exhibits, asking prominent personalities to act as campaign ambassadors and give-aways (DGUV, 2008).

In addition to these activities, the “Healthy Skin” prevention campaign also involved a focused effort on working with various press and media organisations – both general and technical. The aim was to create awareness of the campaign’s goals. Specifically this meant that a press release on a skin-related topic was sent out at least once a month. This was supplemented by additional

<sup>10</sup> Original German title: “Haut”

## 8 Country Examples

releases regarding things such as Workplace Safety Days and PR releases about local events like the marathons, school tours and Healthy Skin Day. These types of activities were further supported by close cooperation with renowned German publishing houses such as Axel Springer and Milchstrasse. As part of the campaign launch, an article was published in “Journalist” – a trade magazine for the media.

The aims of these activities were to get the campaign’s message across and also to establish the campaign organisers as experts in the topic and therefore the ideal people for the media to contact. These campaign measures were carefully coordinated in order to strengthen the message being communicated and to raise awareness of the real dangers that exist both in and out of the workplace. The goal of the umbrella campaign was to establish the topic of healthy skin as an ongoing issue in the media.

### Resources and costs

Each of the associations and organisations set their own resources and budget to conduct their relative campaigns. The umbrella campaign had a joint budget of 3 million euros. Approximately 3 per cent of this budget was used for conducting the evaluation.

### Evaluation team

An evaluation team consisting of representatives from the statutory accident and health insurance agencies was established to determine how the campaign’s effectiveness could be assessed. This took place at

the same time as the campaign measures were being developed. This ensured that the measurability of the effect was focused on from the very beginning. The team developed both the evaluation concept and the actual survey tool. Part of the work involved in conducting the surveys was outsourced to external providers (e.g. telephone survey, process evaluation).

### Constructing an effect model

A behavioural model was designed to detail the effect of the campaign. The “Healthy Skin” prevention campaign implemented a series of measures and used information material in order to raise awareness, to improve knowledge and to change behaviour and conditions. The goals of the behavioural change were to encourage safe behaviour and/or to stop behaviour that can endanger health. Changes in conditions related to the working and living environment, informing people of potential hazards and implementing safety measures such as replacing substances that are hazardous to skin, implementing new technology, organisational methods and personal protective equipment.

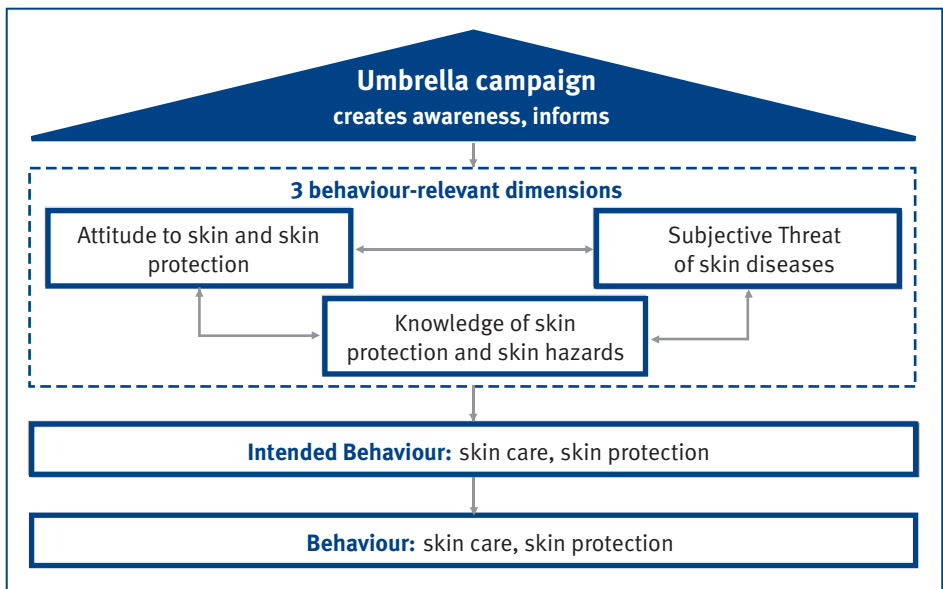
Various models have tried to explain how this all works together. Included amongst these are the Theory of Reasoned Action (Fishbein & Ajzen, 1975) and the Health Belief Model in the field of prevention (Seibt, 2003). There are three dimensions named: Attitude towards illnesses, the perceived threat of illnesses, and the amount of information/knowledge you have to assume that these significantly influence behaviour.

These three dimensions were used as the basis of an effect model for evaluating the “Healthy Skin” prevention campaign. The **attitude dimension** relates to skin health and skin protection. The **subjective threat dimension** relates to skin disorders and diseases. The **knowledge dimension** relates to information about skin hazards and skin protection. Behaviour here is seen as the active use of skin protection and the avoidance of activities that are hazardous to skin. It is assumed that the three dimensions shape behavioural intention as well as behaviour itself over the medium and long term. It is highly likely that there are interactions between these three dimensions. For example,

a positive attitude towards skin protection increases the likelihood that information about skin hazards and protection will be taken up. Thus, information about skin hazards increases subjective threat and a positive attitude towards skin and skin protection. Figure 5 provides an overview of the interactions in the models discussed above as applied to the “Healthy Skin” prevention campaign which had the core aim of increasing awareness and knowledge of the topic.

The effect model (see Chapter 3) was taken into consideration for the evaluation concept and specifically for the investigative tools used to evaluate the umbrella campaign.

Figure 5:  
Working model for the campaign effect



### Tier 1: Concept evaluation

#### *Relevance of this tier*

The campaign was communicated across Germany using billboards. However, before printing the campaign images and slogan, it was important to analyse how this medium could raise awareness, what recollection factor it produced and what sort of associations it evoked. The focus of this analysis was whether the billboards and the campaign's corporate identity were done in a way that worked well with the target group and whether the target group could understand the campaign slogan (Paridon et al., 2006).

#### *Method description*

These questions were investigated under laboratory conditions. The participants were 124 people who had attended various seminars at the Institute for Work and Health (IAG). These people came from diverse occupations including administrative staff, engineers, car technicians, etc. Two posters that were specially developed for the campaign were analysed. The participants rated the posters using a questionnaire and a polarity profile. In order to test whether differences in the time taken to view the posters had an effect on ratings, half the test candidates were shown the poster for 12 seconds and the other half for 20 seconds. In addition, eye tracking was used to analyse eye movement. In addition to studying the posters, associations with the campaign slogan "What are the most important 2m<sup>2</sup> in your life?" were studied. Half of the participants were able to freely express associations with the cam-

paigned and the other half provided feedback using a questionnaire.

#### *Use for the prevention campaign*

Based on the results of this analysis, adjustments could be made to the imagery and the positioning of the slogan. Overall, however, the study showed that the imagery and the slogan used were associated with skin protection by the people being tested. This confirmed the concept plan that the campaign organisers had developed.

### Tier 2: Campaign presence

#### *Relevance of this tier*

More than 100 people were responsible for or worked on drives promoting skin protection in the workplace, as well as regionally and nationally. In order to obtain an overview of the different types of activities and their scope, the various associations and cooperation partners were asked at the end of the campaign to each provide a debrief report for each activity. The institutions were provided with a recommendation of how to structure their reports to help ensure that the results could be compared. Some of the organisations provided joint reports. As a result, the evaluation team received 49 reports. These contained information regarding the scope of PR and marketing, the individual activities/drives, and facts and figures regarding how well the target groups had been reached. 24 of the 49 reports also described the results of their own evaluations. The reports were subjected to content analysis by the evaluator.

*Method description*

In order to summarise the reports and to recognise commonalities in the activities, a deductive content analysis was carried out (based on Mayring, 2000ab). The starting point was the template provided to the various organisations for their reports. A category system was then developed from this. In addition, the main focal areas of the activity/measure were recorded. This category system was then “data managed” because extra criteria were identified when reviewing the debriefing reports and these were eventually used for all documents (cf. Bortz & Döring, 2002).

The list of criteria contained the following main parameters:

- Title of the measure
- Top-level category: Type of measure (e.g. a workplace initiative)
- Subcategory: break down of the measure (taking initiative as the top-level category e.g. workplace skin safety day)
- Number of similar activities conducted
- Scope (number of people covered)

*Use for the prevention campaign*

The various organisations reported more than 130,000 site inspections connected with the campaign topic. These represented the core of the measure. Also very important were the nearly 3,000 events, seminars, promotion days and health days that took place onsite at different workplaces. There were also approximately 2,700 seminars that took place at the training centres of the organising associations.

The umbrella campaign included participation in the three largest city marathons in Germany (Hamburg, Cologne and Berlin). Each of the events included a large exhibition stand and promotional activities for the participants. Further elements included 46 presentations at conferences and information events for specialists, participation at 11 trade fairs and a further 31 press events for promoting the topic of skin protection.

The evaluations from the various organisations focused on individual measures, sub-projects or pilot projects with particular target groups. 14 organisations decided to use a pre-test/post-test design to ensure that robust conclusions could be made. The most commonly reported of these were changes in knowledge, attitude and behaviour in the groups targeted by the campaign.

The campaign’s organising committee was able to retrospectively assess the scope of the campaign activities that took place. As a result, the financial backers of the campaign could see what was done with their funds and which were the most popular measures. The analysis also provided information about specific areas that need to be addressed in future campaigns.

**Tier 3: Media presence***Relevance of the tier*

The goal of the campaign, in terms of working with the media, was to get the message into editorials and at the same time establish the statutory accident and health agencies as experts on the topic and the

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first point of contact for the media (DGUV, 2008). Intensive work with the press meant that nearly every month over a period of two years there was a report in the press on the topic of skin or coverage of local events such as marathons, school tours and skin days. In addition there were billboards, an Internet site, advertising, special publications and a large number of prevention materials provided to the target groups (information flyers, brochures, films, skin care and skin protection pamphlets).

### *Method description*

A media resonance analysis was conducted to analyse the information spread by the media during the campaign and its frequency and scope. This involved engaging a clipping service to collect all reports that appeared in newspapers, magazines, online, radio and television. Afterwards the campaign's media presence was assessed in terms of qualitative and quantitative characteristics. These were divided into articles mentioning the campaign that came from the press themselves and other articles that the organising associations and institutions published in their own media. This allowed the scope of media coverage to be recorded and assessed.

### *Use for the prevention campaign*

The media resonance analysis provided information regarding the scope and spread of the messages aimed at the target groups. By the end of the campaign, this totalled 3,000 reports or articles which had the potential to be read 300 million times. Approximately

60 percent of the articles/reports that appeared could be attributed to press releases from the prevention campaign. The enormous response from the media to the "Healthy Skin" prevention campaign, compared with previous campaigns from the statutory accident insurance agencies, set new standards for future campaigns. Analysis of media resonance was established as an important tool for working with the media. Analysis showed that the topics which the media were keen to report the most were: 1) what to do when going out in the sun, and 2) facts about specific target groups and the development of skin disease in the workplace. There was a particularly strong response from regional newspapers. Public relations work done during the course of the campaign was adjusted based on these findings.

### **Tier 4/5: Level of awareness and changes in behaviour and conditions**

#### *Relevance of the tier*

To achieve the goal of "Healthy skin – less skin disease" over the long term, information was disseminated through various channels in order to raise awareness, improve knowledge and even to change behaviour and conditions. A particular focus of the campaign was to encourage the right behaviour in the target groups in terms of protecting and caring for their skin. In terms of changing workplace and living conditions, associations provided information about hazards and various preventive measures; for example, replacing substances that are hazardous to skin or introducing new tech-

nology, organisational measures and personal protective equipment. The campaign organisers identified the general population as the target group for the campaign because the topic was of importance to both insurance companies and to the federal and state governments. Therefore, the campaign organisers were interested in knowing if an increase in awareness during the course of the campaign had been achieved. The behavioural model of effect, as described above (see Figure 7) was based on this assumption.

#### *Method description*

To investigate the direct influence that the campaign had on the target groups, research questions were asked about the level of awareness and also in terms of the behaviour/change tier. A uniform approach was used here because this made it possible to gain insights into the survey methods.

Due to the fact that prevention campaigns consist of several prevention products, the campaign organisers assumed that it would be difficult to observe the effects of individual measures in isolation from another. Therefore, the survey they developed for the campaign was measure-independent. Furthermore, it was assumed that, based on the results of social-psychological research, the psychological mechanisms that result in attitudinal and behavioural change would only be visible after the campaign had ended (cf. Stroebe, Hewstone & Stephenson, 1996; Herkner, 2001). The fact that the general population was addressed by the umbrella campaign meant that a sample group could

be used. It was not possible to maintain and control intervening variables and this limitation was taken into consideration by the methodological approach used.

A telephone survey was conducted to assess the level of awareness, the increase in knowledge and the behavioural changes in the general population (see Table 7). This was based on the behavioural model and was conducted in a non-experimental pre-test/post-test design. The pre-survey of 2,027 people took place prior to the start of the “Healthy Skin” prevention campaign. The post-survey of 2,080 people took place two years later. A further intermediate survey with 661 people was conducted at the regional level in the middle of the campaign in autumn 2007. The survey was conducted from the telephone rooms of the survey organisation Academic Data. They contacted people aged between 16 and 65 and asked them questions about skin and skin protection (replication survey). Respondents were randomly selected by random generation of a telephone number and then further by being asked who last had a birthday (the Last-Birthday method). Thus, systematic bias in sampling, e.g. from people who like to talk, was minimised and the same person could not be surveyed for the pre, post and intermediate measurement. The following independent samples resulted.



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Table 7:  
Study design

	Pre Autumn 2006	Intervention 2007	Post I Autumn 2007	Intervention 2008	Post II Autumn 2008
General Public All	$Y_{11}, Y_{21}, \dots, Y_{n1}$ 2,027	“Healthy Skin“ Prevention Campaign	$Y_{12}, Y_{22}, \dots, Y_{n2}$ regional 661	“Healthy Skin“ Prevention Campaign	$Y_{13}, Y_{23}, \dots, Y_{n3}$ 2,080

*Y* represents the dependent variables (see above) numbered from 1 to *n*. The second number refers to the phase when the measurement was done.

### Use for the prevention campaign

The pre-survey clearly showed that the general population had a comprehensive understanding of skin protection and that they attached considerable importance to their skin (attitude). Nevertheless, their everyday activities in terms of skin protection had room for improvement (behaviour).

Analysis between the years 2006 and 2008 could only point to differences related to individual topics such as what to do when going out in the sun (DGUV, 2008). These arose from groupings in the population that were more responsive to the campaign’s messages because of certain characteristics, e.g. increased skin exposure/irritation or greater skin awareness. Firm conclusions could be made about changes in the target groups from the evaluations conducted by the various organisations. They examined specific measures and accordingly they found significant changes in the target groups (Kauer & Nold, 2008). For example, companies planned more skin protection after the campaign and the people surveyed used PPE and skin care products more frequently. Based

on this information, the evaluators decided that surveying a representative sample of the general population was not enough to uncover the actual effects of the campaign.

### Tier 6: Cost-benefit analysis

#### Relevance of the tier

In 2005, skin disease accounted for 28% of all reported workplace illnesses and thus was the leading cause of work related health problems. The proportion of confirmed workplace illnesses (confirmed as resulting from the workplace) attributable to skin disorders/diseases was almost 39%.

For the statutory accident insurance agencies, reducing the amount of occupational skin disease by improving skin protection means that less people are on work disability pensions and there are lower rehabilitation costs. For the companies affected, successful skin protection could result in fewer disruptions in the workplace due to time off work. It could also mean a reduction in contributions to their employer’s liability insurance. Therefore, this tier looks at the

monetary benefits that skin protection can bring to a company (Lüdeke, 2006b).

#### *Method description*

Costs due to lost hours caused by an inability to work or illness-related fluctuations were used as an indicator for the benefit of preventing skin disease in the workplace. This potential benefit was compared to the costs of implementing appropriate measures of skin protection. Three of the industries most affected by skin disease – nursing industry, chemical industry, metal industry – were selected for study. Within each of these industries, one occupational group was selected as they were seen as being particularly at risk to skin disease and disorders. Data about workplace and job costs were used for assessing lost-work costs. The costs associated with skin protection were calculated based on the costs of typical usage in each of the workplaces of the occupational groups.

#### *Use for the prevention campaign*

Based on model theoretical assumptions about lost-work costs (compared with skin protection costs), it has been shown that having a skin protection plan can significantly reduce work-related skin disorders. In addition, the company can benefit financially depending on the length of time that a worker is unfit for work (Lüdeke, 2006a; Batzdorfer & Schwanitz, 2004a,b,c; Diepgen, Schmidt & Kresken, 2004; Goetzel, 2004; Dickel et al., 2001). In concrete terms, skin protection is financially viable in the nursing and metal industries when a worker

is unable to work for more than ten days and in the chemical industry (laboratory) this is actually below ten days. These calculations should show company owners how they can minimise skin-related issues through the introduction of appropriate preventive measures which can also benefit the company financially.

#### **Tier 7: Quality of the campaign structure and processes**

##### *Relevance of the tier*

The “Healthy Skin” prevention campaign, which ran over a period of two years, was the first time in the history of social insurance in Germany that the different statutory accident and health insurance institutions combined forces. This partnership put new impetus on measures to protect employees against work-related health hazards. As part of the process evaluation, the cooperation between these many organisers was analysed with the aim of learning what could be done to improve future campaigns.

##### *Method description*

Two methodological approaches were followed. Firstly, interviews were conducted with the project committee. The results were used later in an internal project group of the DGUV in the form of an internal review. The interviews were conducted by the survey company Academic Data using qualitative interview guidelines. The aim of this survey was decided by asking the committees and boards what their areas of interest were. The subject of the survey was the assessment of

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the campaign structure, project organisation, project management, project workflow and the adequacy of the cooperative processes. Furthermore, implications and insights for coming projects were investigated. The survey was conducted at the halfway point of the campaign and was directed at a specific group: members of the project team and external providers (e.g. agencies).

The aim of the internal review was to analyse the results of the interviews from experts and the campaign management team. The umbrella campaign was examined at the operational level in order to determine which factors either supported or hindered working processes. The advantage of this two-tiered survey was that the people who came up with the recommendations were the same ones who were involved operationally in the next campaign. This ensured that the basic prerequisite of transferring the results was achieved.

### *Use for the prevention campaign*

The two-tiered approach which combined interviews with an internal review proved to be advantageous. Using the results of the interviews it was possible to develop recommendations for improving the next campaign. The downside was the fact that only decision-makers in the project team were interviewed. Prevention workers from the individual institutions that worked at the operational level were not interviewed. This group of people represents an important source of information that should be made use of in future campaigns. The internal review, on the other hand, resulted in knowledge transfer

of the results from the interviews and other issues that arose during the course of the campaign. These were compiled into a list during a joint workshop and an action plan was put together with a list of people responsible for actioning this information and providing it to the next campaign team.

### **8.2 Switzerland, SUVA: “The 11” prevention campaign**

#### **Overall context of the campaign**

Unlike many other countries, it is compulsory for all employees in Switzerland to be insured for accidents including those in their free time and while commuting. In order to reduce the increasing number of non-work accidents, the Swiss National Accident Insurance Fund (SUVA) promotes safety at home and free time with broad-based campaigns, individual advice and training. This is done in addition to SUVA’s work in OSH. Football (soccer) is one of the most popular sports in Switzerland. This can be seen in the number of football accidents with 40,000 of these being reported to insurance companies in Switzerland every year. 26,000 of these (65%) are handled by SUVA. The resulting costs amount to around 140M Swiss francs. Nearly all of the injuries are suffered by amateurs and recreational players.

SUVA has been promoting injury prevention in football since 1994. It has established itself as a reliable partner for preventing injuries in football with campaigns such as “Warm up before kick off” and “Safety in inter-company football”.

The effectiveness of preventive measures in reducing football injuries has been scientifically proven. Therefore, it was justifiable to run a comprehensive, country-wide campaign.

The most common injuries in football are leg injuries including ankle sprains, knee injuries and pulled thigh muscles. In order to achieve a lasting reduction in these injuries, the FIFA-Medical Assessment and Research Centre (F-MARC) together with SUVA and the Swiss Football Association (SFV) developed a preventive training programme called “The 11” and launched a national prevention campaign designed to last several years. SUVA decided to study this campaign with the assistance of an external evaluation institute.

### Goal of the campaign

The primary goal of the campaign was to reduce the number of injuries, the severity of injuries and to improve performance using targeted intervention in both training and games.

Specifically this means making sure that from 2007, all 226,000 amateur footballers registered in Switzerland know about “The 11” training programme and use the exercises during their training; the aim being to reduce the risk of injury in amateur football to 10 per cent within five years. “The 11” has also become a fixed part of the train-the-trainer programme in the Swiss Football Association.

### Sponsoring bodies

The national campaign was financed by SUVA. Medical and scientific support was provided by F-MARC based on their prevention studies of junior football. The campaign was essentially implemented by the Swiss Football Association and its regional associations.

### Target groups

“The 11” has been incorporated as a fixed element into the SFV’s train-the-trainer programme and is aimed at the 1,414 clubs of the SFV and their 226,000 active licenced players aged between 14 and 65. The campaign also focuses on trainers, counsellors, referees, clubs, fans, journalists and the general Swiss population.

### Measures

The core of the campaign – the training and strength programme - was devised by experts from F-MARC under the leadership of Dr. Jiri Dvorak.

The programme was designed so that players who are forced to suddenly alter their usual exercise plan due to external influences are better prepared for such situations and therefore suffer fewer injuries. In addition to the ten exercises that are important for preventing football injuries, “The 11” also includes the rule of fair play. This was done by the Swiss Football Association using specific communication and provisions (referee training, rules, fair play trophy, rituals, etc).

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A core component of “The 11” was a DVD in five languages. This consisted of detailed demonstrations of the ten exercises, commentary and a practical brochure with further explanations. These preventive measures were communicated through training courses, via TV advertising, posters, brochures, Internet and more.

### Resources and costs

The cost of implementing the communication measures of this campaign was approx. 3 million Swiss francs (CHF) (excluding personnel costs from the three organisations). The external evaluation cost 280,000 francs, that is, around 10% of the budget.

### Evaluation team

One of the campaign’s strengths was that it involved success monitoring with a separate evaluation team.

To plan and coordinate the evaluation, a team of experts with expertise in evaluation, sports medicine and prevention marketing was put together with representatives from the relevant stakeholder groups. This created a situation whereby information could be quickly exchanged between the evaluation team and the campaign organisers, so that the organisers had relevant information for every organisational phase of the campaign. In order to guarantee an independent assessment of the effects and effectiveness of the campaign, an external evaluation institute, Lamprecht & Stamm L&S in Zürich, was contracted to monitor the success of the campaign.

### Evaluation team

- Dr. Astrid Junge, FIFA - Medical Assessment and Research Centre (F-MARC), Schulthess Clinic, Zurich
- Harald Reuter, Psychologist, Institute for Social and Preventive Medicine (ISPM), University of Zurich
- Dr. Markus Tschopp, Federal Office of Sport, (BASPO) in Magglingen, Bern.
- Heinz Wyss, SUVA, Project leader of “The 11” campaign
- Chris Chilvers, SUVA, Evaluation project leader
- Dr. Markus Lamprecht, Lamprecht & Stamm, Sozialforschung & Beratung AG, Zurich

### Effect model

Implementation of the campaign was two-tiered. The first was aimed at the trainer and the second was aimed at the “point of danger”.

#### 1. Using disseminators

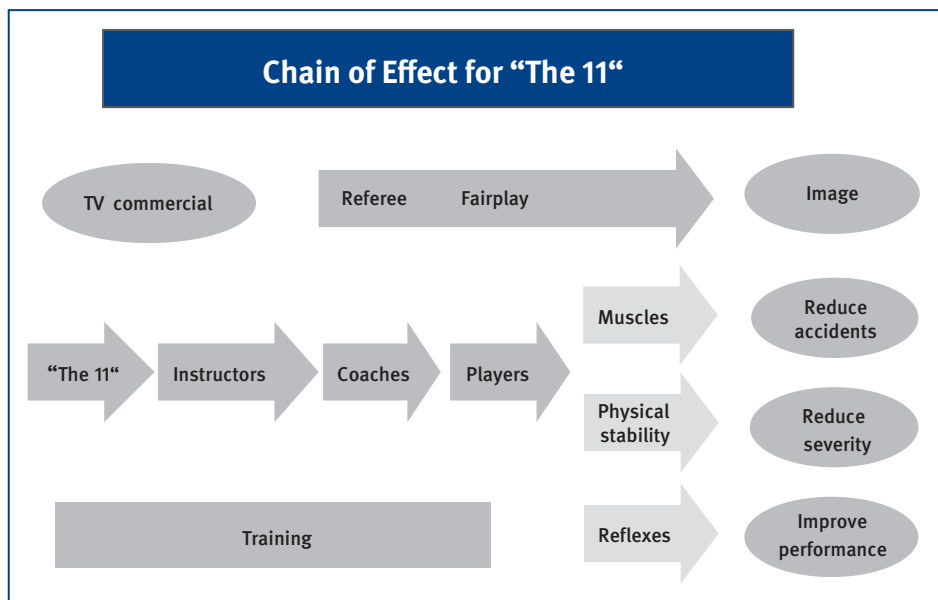
The coaches were actually the key people in the campaign. Organised football (with licenced players) is indirectly influenced by the central and regional education of coaches. This education is given by qualified instructors. It is possible to guarantee sustained prevention of injuries during training and playing by increasing awareness, motivation, knowledge and skills of trainers via a network of disseminators.

In real terms this means that since autumn 2004 all SFV instructors (qualified to train

the trainer) have had comprehensive exposure to “The 11” programme so that from spring 2005 all new coaches have been given “The 11” as part of their basic training.

By the end of 2006, all existing coaches were to receive additional training, enabling them to incorporate “The 11” into their training repertoire.

Figure 6:  
Chain of Effect for “The 11”



## 2. Influences at the “point of danger”

Situation specific factors which influence players in their own environment include: safety measures in the clubs, the attitude of the club management/board, the behaviour of the club and team, peer group influences, idols, role models, parents, spectators and the media.

## Tier 1: Concept evaluation

### *Relevance of the tier*

The relevant questions during the planning phase were:

*What does the campaign want to achieve?  
Do we have the right goals and resources?*

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The concept evaluation provided a comprehensive description of the problems in terms of type, degree and spread. This was the basis for defining the measurable goals and target groups for the campaign. An assessment was also produced in terms of form, content, dissemination channels and effective use of resources.

The evaluation provided important data during the planning phase which was the foundation for the entire campaign. A number of approaches and materials could be trialled and improved upon before they were used on a national basis. It also enabled the project management team to make informed decisions from the very beginning.

### *Method description*

There were two tiers for the concept evaluation: One for planning the campaign and its execution and then one for planning the evaluation and specific procedures.

#### 1. “The 11” pre-test

In the lead up to the campaign, “The 11” was tested during two football seasons (1999 - 2000) by seven teams in Basel and Zurich. The teams were examined by sports doctors every week. Physiotherapists were also on hand for players and coaches. The study looked at a total of 194 players and was conducted as a prospective cohort study with control group. The aim was to investigate the quality and quantity of training, the physical performance of players and the frequency of injuries. Motivation in coaches and players

regarding the prevention programme was also measured.

It was decided to forego focus groups and expert interviews as part of the concept evaluation because the existing project groups already consisted of a large number of diverse experts.

#### 2. Trainer survey, panel

The evaluation team discussed different approaches and measurement techniques in terms of their advantages and disadvantages. They decided that the most promising and viable solution was to focus the evaluation on the coaches because they are the key people and key disseminators of the campaign. It is up to the trainers to adapt the exercises from “The 11” training programme and to make sure that they are used correctly as part of their training sessions. Hence, it was decided to use a representative panel survey.

The coach survey provided a sound basis for answering core questions about the campaign, about process monitoring and about the outcome evaluation.

A coach survey, unlike a player survey, also made it possible to record enough information about injuries over a short observational period of four weeks. This enabled statistically significant conclusions to be made concerning expected differences. A total of 1,000 coaches were surveyed over a period of one month and reported approximately 1,600 injuries.

To complement the quantitative survey conducted with the coaches, a more quantitative-oriented series of targeted observations was conducted which looked at selected training sessions.

One of the well-known difficulties with panel surveys is panel attrition. This means that

a proportion of the coaches surveyed are unable to take part in subsequent surveys (e.g. they are no longer interested or they are no longer coaches). Panel attrition in the surveys conducted was about 50%. The people who dropped out were replaced with a new selection of coaches which effectively resulted in a rotating panel (cf. Figure 7).

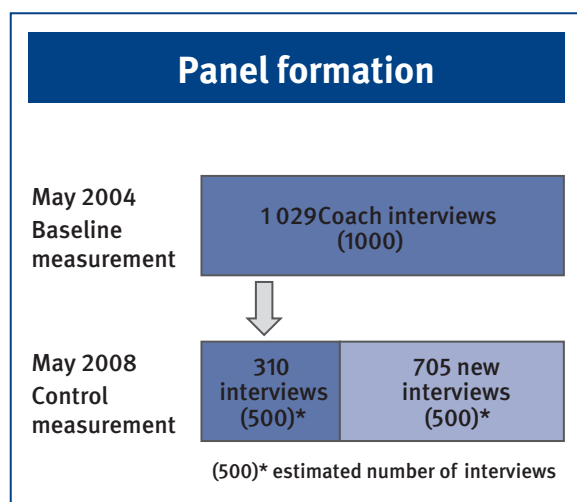


Figure 7:  
Panel formation

### *Use for the prevention campaign*

#### 1. “The 11” pre-test

A pilot study by F-MARC made it possible to establish clear ideas about the effect of the campaign and to set detailed goals which the evaluation could be geared towards. This included defining target sizes (e.g. What per cent of amateur football coaches should know about and use “The 11”? What’s the

scope of the reduction in injuries? What “dose” shows an effect? What is the best time to conduct the survey? Which month has the highest number of injuries?)

#### 2. Trainer survey, panel

Using this approach it was possible to distinguish between two groups in the second wave of surveying (2008): Group (a) consisted of all coaches who had been surveyed



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in 2004. Using this group it was possible to study acceptance, implementation and the effect of the campaign over time. However, this group was not suitable for measuring awareness of the campaign because this group of coaches had been made aware of the campaign when they were contacted for the first survey. Conclusions regarding increased awareness and spread of “The 11” could, however, be made from surveying group (b) as they had not been surveyed in 2004.

Frequent player changes in a football team reduce the impact of the measures that a coach uses. As such, they also had to be asked how long an injured player had been a member of the team.

### Tier 2: Campaign presence

#### *Relevance of the tier*

A part of evaluating “The 11” was to conduct various studies (surveys, observation of instructors) during the course of the campaign and to analyse this information. This information was then directly used by the evaluation team in campaign planning. This allowed any significant problems or issues to be quickly identified and appropriate alterations and improvements to be made to the campaign.

#### *Method description*

The main focus was on the execution of the campaign which consisted of the following three phases in hierarchical order:

- Training SUVA instructors
- Training coaches
- Using “The 11” in training sessions

Particular importance was attached to the expectations that the coaches had of the campaign, their acceptance of it and what they did with the resources and materials provided to them. The most important of these were: their use of resources/materials, acceptance of information, understanding, imparting information, processes, effects, education level and also players’ behaviour.

#### *Approach*

The approach used for investigating campaign presence can be divided roughly into three parts: verbal interview of key people during implementation, written questionnaire at the end of the training courses and observation of training sessions.

The written questionnaire was given to participants at the end of all training courses conducted by the Swiss Football Association. It looked at whether, and in what way, “The 11” was taught during the course and examined how willing and able the coaches were to use “The 11” in their training sessions. The questionnaire also looked at their level of education, acceptance and how they planned to implement the measures.

#### *Use for the prevention campaign*

The three surveys conducted between 2005 and 2007 of people who participated in training courses allowed one conclusion to be drawn. This is detailed below and is bro-

ken up by the results of the questionnaires and the observations done by the instructors.

### *Questionnaire assessment*

- During the first year there were some issues with getting the questionnaires returned: Although the return rate from SFV courses was 100%, the return rate from cantonal courses was only 60%. Instructors in some regions either did not do the survey or did not return them. However, appropriate measures were taken and the return rate from cantonal courses was significantly improved over time.
- The majority of participants that were surveyed coached teams that belonged to the target groups of the campaign (adults and juniors aged 13-19). Nearly a third of participants did not coach a team but wanted to do this and so took part in a SUVA course or they trained children or juniors aged 7-12 which were not part of “The 11” target group.
- In all courses where questionnaires were returned, the training material for “The 11” was presented and then handed out. Usually there was also more detailed instruction and a practice session where the instructor corrected any errors in the way the coaches were currently conducting training sessions. Only in individual courses, did the participants not do the 10 exercises themselves. The vast majority (80%) of coaches surveyed could do the exercises and, in their opinion, could implement them without any problems. However, every fifth person was unable to do this without reservations.
- The training programme and its benefit in preventing injuries were generally rated as positive. However, coaches were more sceptical about its feasibility in training and the willingness of players to regularly do the exercises. Nevertheless, the majority of coaches (60%) were confident that they would be able to incorporate “The 11” into their regular training sessions.
- There were almost no differences in the ratings of the programme and the way it was taught when looking at the different language regions of Switzerland, the education level of the coach and the teams being trained. The intention to incorporate “The 11” regularly into training was equally high for coaches of both adults and juniors aged 13-19.
- There were some significant differences between the various courses. These included significant differences in what they knew about the efforts of the SFV to encourage Fair Play and also their willingness to adopt “The 11”.
- The instruction in some courses was rated significantly worse than is usual. However, even in these courses, the rating was between adequate and good.
- Over time there were no noticeable differences in assessments of the course and the way that the prevention programme was rated.

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### *Insights from observing training sessions:*

- The majority of instructors were highly engaged in their work. They not only carried out their observations but could also motivate trainers and teams to implement the programme. However, there were some instructors who did not provide anything significant in terms of documenting their visits and cooperating with the coaches.
- Nearly 90 percent of the observed teams were using the training programme or individual exercises from “The 11”. Between 2006 and 2007, the proportion of teams who only used individual exercises had significantly increased. In 2007, only 15 percent of coaches were using the entire programme.
- The teams which only used some of the exercises from “The 11” were using, on average, between four and five exercises. A third of the teams needed between 3 and 8 minutes to do the exercises, a third about 10 minutes and the last third invested 12 minutes or more in the programme.
- Strength-building and stability exercises were done more than coordination and balance activities. The clear favourite was Exercise 7 (The Bench)<sup>11</sup>. The least favourite was Exercise 4 (Circling partner).
- More than 90 per cent of the training sessions observed used other, comparable exercises instead of, or in addition to,

“The 11”. The most common of these were coordination exercises. Extra/alternative balance and jumping exercises were less frequently used.

- Although the coaches used less of the exercises in 2007 than in 2006, they were, on the whole, still being done correctly.
- The motivation of the coaches to use the exercises was rated as high. The motivation of the players on the other hand was rated lower. Especially junior players were often only moderately motivated. Motivation in the coaches and the players increased between 2006 and 2007.
- There were no significant (statistical or otherwise) differences between the different leagues. Similarly, there were no great differences between the different language regions.

### **Tier 3: Media presence**

#### *Relevance of the tier*

The campaign was predominantly a training programme carried out by the Swiss Football Association (SFV), but cooperation with FIFA and SUVA and their media presence was also a very important factor. This allowed the campaign to gain in importance and it was even treated as a pilot project. Acceptance, goodwill and participation of the target groups was not only achieved but also strengthened.

<sup>11</sup> A complete overview of the exercises can be downloaded from: <http://f-marc.com/11plus/index.html>

*Method description*

The campaign's media presence was quantitatively assessed by the SUVA press service by collecting clippings of all reports appearing in press, radio and television; online media was not included. This not only looked at the campaign's reach across the general public but also in the target groups (coaches and players). Due to the overall positive response of the media, a qualitative assessment was deemed unnecessary.

*Use for the prevention campaign*

"The 11" campaign was particularly well received by press media, particularly in connection with FIFA, the SFV and with regards to the European Football Championship that took place in Switzerland and Austria in 2008. At the media launch of the campaign, FIFA presented the campaign as a pilot project which, after its successful implementation in Switzerland, would be implemented worldwide.

Every Swiss daily newspaper, radio station and TV station reported "The 11" campaign. The majority of journalists used the information from the press releases and made use of the images provided. Since the start of the campaign in 2004, the campaign has been reported a total of 293 times (print and electronic media). Specialist magazines and TV used their own research to enhance the information they received. News reports about the campaign had an average duration of 2 to 5 minutes.

**Tier 4/5: Awareness level and changes in behaviour and conditions***Relevance of the tier*

Surveying the trainers twice about awareness levels and changes in behaviour and conditions not only made it possible to draw conclusions about awareness and ratings of the campaign but also about specific measures implemented and the frequency of player injuries. Detailed information regarding exposure time and the differences between trainers that implemented the programme and those that did not, made it possible to draw reliable conclusions about the effectiveness and efficiency of the campaign.

*Method description*

A representative sample (n=1000) was selected for the outcome evaluation. These were sourced from the SFV database of all coaches active in Swiss amateur football. They were interviewed by telephone at the start of the campaign (baseline measurement: 2004) and at the end of the campaign (2008). Surveying took place in May because, according to SUVA, the rate of injuries in this month is particularly high.

Prior to this, the questionnaire and the availability of the trainers were trialled: The questionnaire was developed together with specialist group "Evaluation" and before the first interview a pre-test was conducted in German with 30 respondents. This investigated ease of understanding, ability to maintain interest, the filtering process and suitability of conducting the interview by telephone.

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In addition, the availability of the coaches and the quality of the contact data was checked. The assumption was made that coaches are a difficult target group to reach (employed, active in sport, active in the club, etc).

In addition to the planned coach survey, statistics on football accidents from SUVA were also analysed (from 2005).

### *Use for the prevention campaign*

Following the pre-test, the questions were improved, the exact interview time was set and the number of contact details needed was determined. The questionnaire was proven to be qualitatively strong and the ability to contact trainers was ensured.

Whereas most of the epidemiological studies of football injuries to date have studied professional players, the new data that was obtained represents an important source of information about injuries in organised amateur football. Previous research concerning preventive measures in football has been conducted in laboratory studies and with samples of less than 200 players. Previously there had been no publications regarding the effectiveness of a national prevention campaign in amateur football. Due to the results of the evaluation of this national campaign, FIFA is now considering expanding this programme worldwide.

### *Results*

In 2008, four-fifths of all SFV coaches knew about “The 11” prevention campaign. Over half of all trainers (57%) used the programme or parts of it with their team. 7% had previously used “The 11” and 36% had not used it at all. The main reasons given for why they did not use “The 11” were: knew nothing or very little about the programme, they used similar exercises, lack of time and other priorities. Many of the coaches that did not use “The 11” stated that they used other exercises with their team for strength building, coordination and improving jumping strength.

The coaches who use “The 11” do this generally once (59%) or twice (33%) per week. One session of “The 11” lasts on average 13 minutes with an average of 4 exercises from “The 11” supplemented with other exercises. The vast majority of coaches stated that they paid attention to making sure that the exercises were done properly and that the players were motivated to join in. The total warm-up time had not increased significantly because of “The 11”. Thus, “The 11” has taken the place of other exercises especially those which involve stretching.

“The 11” was used most often in the 2nd and 3rd leagues, in the juniors aged 13-14 and in women’s football. The only leagues where participation was below 50 per cent were the seniors and veterans with a participation rate of 20%. “The 11” was less used in the regions of Lémanique and Zurich and also less used by trainers with less experience and without SFV certification.

Between 2004 and 2008 there was a drop of 12% in the number of in-game injuries. This success can be attributed to “The 11” because teams which used “The 11” properly had 15 per cent less injuries than teams not using “The 11”. In order to reduce injuries, it was not sufficient to simply do any mix of exercises for strength, coordination and jumping. Only those trainers that used a minimum of 50% of the exercises from “The 11” showed the desired effect. The result that teams who used “The 11” had fewer injuries per 100 games than teams not using “The 11” was seen across all leagues.

The injury profile did not change significantly between 2004 and 2008. There was a reduction in the number of groin, thigh, lower leg and knee injuries as well as fewer muscle strains and tears. However, the number of upper limb injuries increased.

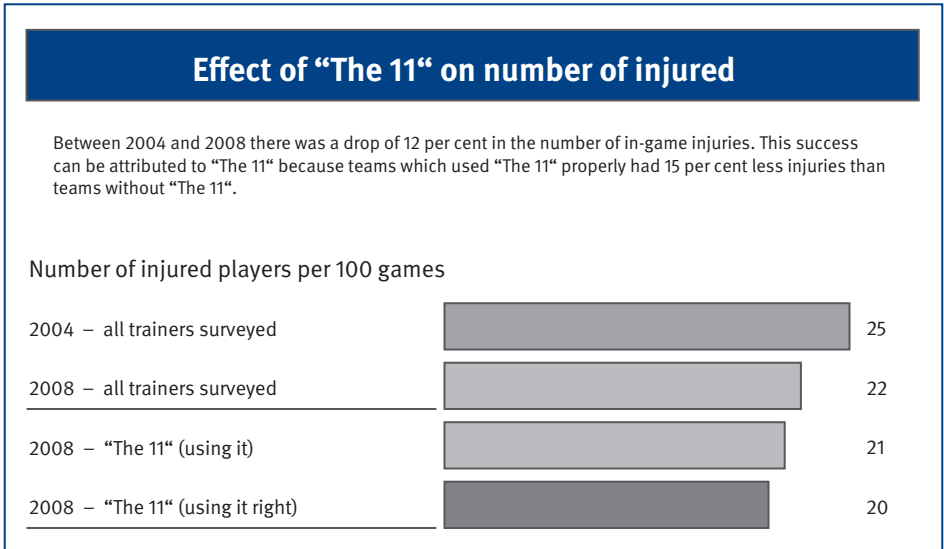
Primarily there was a drop in the number of self-sustained injuries with no clear picture for injuries involving other players. Similarly for injury severity, there was only a reduction in injuries that did not require medical assistance. Nevertheless, the number of lost days was reduced and was significantly lower for teams using “The 11” compared with teams not using it.

Figure 8:  
Effect of “The 11”

<b>Effect of “The 11”</b>				
<b>Change to the number of injuries per 100 games</b>				
	2004:	2008: all	2008: “The 11” (using it)	2008: “The 11” (using it right)
Number of injured	1 054	914	495	192
Number of games played	4 212	4 176	2 389	971
Number of injured per 100 games	25.0	21.9	20.7	19.8

“The 11” (using it) = people stating that they are currently using “The 11”  
 “The 11” (using it right) = people using “The 11” for more than 6 months with an average of at least three exercises per training session.

Figure 9:  
Effect of “The 11” on number of injured



Accidents during training dropped by 9 per cent between 2004 and 2008. In teams that are currently using “The 11” there are clearly fewer injuries than in teams that are not using “The 11”. However, again there was only a drop in light injuries that did not require medical treatment. More significant was the reduction in days lost: The number of days lost due to injuries during training was significantly reduced in teams using “The 11”.

### Conclusions

It is safe to say that “The 11” was successful and achieved many of its ambitious goals: The vast majority of coaches know the programme, can use it and have a positive opi-

nion of it. More than half of them do actually use it. Implementation of the programme has shown a clear effect: Between 2004 and 2008 the number of in-game injuries dropped by 12 per cent and the number of training injuries dropped by 9 per cent. However, these reductions apply predominantly to light injuries which do not require medical attention.

Potential areas with room for improvement are: unqualified trainers, coaches of senior and veteran teams, and coaches from the Romandy (French speaking) region of Switzerland. These coaches do not know enough about “The 11” or are below-average users of the programme even if they know about it.

Generally speaking, only certain exercises are used from “The 11” and not the entire programme. The coaches combine “The 11” exercises with their own exercises which reduces the effect especially as they are often not carried out properly. Moreover, it is debatable whether this is to do with strength, coordination or balance exercises. This requires further investigation and a suitable adjustment of the programme.

Promotion and marketing of “The 11” could be enhanced. This is also the wish of the coaches who particularly want more information for their players. Extending the programme to other types of sports could also be a medium-term goal.

The 11th point of “The 11” appeals to fair play. Although there is broad, undisputed commitment to fair play, there is no clear evidence that this has changed or improved since the introduction of “The 11”. In the last five years, there has been hardly any reduction in the number of injuries involving other players or injuries resulting from a foul.

### **Tier 6: Cost-benefit analysis**

#### *Relevance of the tier*

Amateur football is one of the most accident-prone sports in Switzerland and results in correspondingly high costs. In 2006, insurance companies paid out approximately 139 million francs for 40,000 accidents in the form of treatment costs, daily allowances

and disability benefits. Combining prevention, insurance and rehabilitation is definitely worthwhile. This is because prevention reduces the number of accidents, and related costs, which in turn means lower premiums

for policy holders<sup>12</sup> and lower absenteeism and associated costs for businesses.

#### *Method description*

A full cost-benefit analysis in the true financial sense was not part of the evaluation of “The 11” prevention campaign.

The cost-benefit of a campaign is calculated by looking at all of the costs associated with the campaign and deducting this from the financial benefits that it has brought. However, it is not always possible to express benefits in monetary terms. There are also non-monetary benefits such as reducing suffering or improving image; these can then be expressed as “shadow prices”.

#### *Use for the prevention campaign*

#### *Effect of the campaign on reducing accident costs*

Savings in terms of pure medical costs as a result of a reduction in football accidents can only be extrapolated at the end of 2010 with the official insurance data from 2008. Salary and lost-work costs can only be roughly calculated.

<sup>12</sup> In Switzerland, an employee who works for the same company more than 8 hours per week must be insured against non-work accidents including commuting.



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Table 8:  
Cost-benefit analysis

Costs		
Total cost of the campaign 2004 – 2008		CHF 3,000,000
per year	CHF 600,000,-	
CHF 600,000 translated into accident costs		
Costs per football accident (2,500)		
results in:	240 accidents	
Benefits		
From representative sample of 1,000 trainers Month of May (month with the most accidents)	1,600 accidents	
Assume approx. 1/3 require a visit to the doctor	approx. 500 accidents	
Campaign goal: -10% reduction in accidents (in reality 12% actually achieved)	- 50 accidents	
57% of trainers use “The 11” (x50%)	- 25 accidents	
Extrapolated to 3,500 coaches (x3.5) (in reality 5,384)	- 90 accidents	
Extrapolated to whole football year (x4 months) (in reality 5 months)	- 360 accidents	
Converted to accident costs (2008) (x CHF 2,500)	CHF 900,000,-	
75% for 2007	CHF 675,000,-	
50% for 2006	CHF 450,000,-	
0% for 2005 (first training courses begin)	CHF – 0 –	
0% for 2004 (instructor courses begin)	CHF – 0 –	
generated savings 2004 – 2008	approx. 2,025,000	
Costs amortised from 2010	approx. 3,375,000	approx. – CHF
80% for 2009	CHF 720,000,-	375,000
70% for 2010	CHF 630,000,-	

A rough calculation of the campaign’s return on investment could look as follows (see also Table 8):

The cost of the campaign consisted exclusively of the costs associated with producing the materials. The train-the-trainer courses are part of the services offered by the Swiss Football Association and therefore did not

represent any additional costs. The total cost of the campaign over 5 years was 3,000,000 CHF. The current average cost of a football injury is around 2,500 CHF. Thus, a reduction of 1,200 injuries (240 per annum) would amortise the cost of the campaign.

The evaluation used a representative sample of 1,000 coaches (from a total of 5,384) who were surveyed in the month of May and an average of 1,600 injuries was measured. The 23% of coaches who correctly used “The 11” on a regular basis had 12% less in-game injuries and 25% less training injuries than those coaches that did not use “The 11”. A further 33% of coaches who only used part of “The 11” achieved a corresponding reduction in injuries.

Let us assume that only about a third of injuries need to be treated by a doctor, that is, around 500 accidents. Conservatively assuming that “The 11” reduces accidents by about 10%, this would mean 50 fewer accidents. Since, however, only 57% of coaches use “The 11”, we reduce this number by half and are left with a reduction of about 25 severe injuries. If this is extrapolated to 3,500 practising coaches, then around 80 severe injuries were prevented in the month of May. We can further assume that in a football season of 4 months, there would be 240 injuries prevented which is the number we calculated earlier to amortise the annual cost of campaign. Further financial benefits can also result from the strong media presence and the positive image of the three organisations sponsoring the campaign.

#### *Non-monetary benefits/how it was received*

In many ways “The 11” programme had above-average take-up and acceptance (see Tier 3: Media presence) and initiated wide-spread learning processes or as Dr. Astrid Junge, Scientific Researcher at F-MARC, said: “Trialling a nationwide prevention campaign is unprecedented and is an excellent basis and motivator for FIFA’s planned interventions”.

Thus, “The 11” can go into “extra time” and further adjustments to the programme will build on the great work already done with this campaign.

“The results of the study can be seen as a successful interim result”, said Heinz Wyss, Football Campaign Manager, SUVA “but further work must be done because the results show that there is also room for improvement.”

The success of the campaign and the evaluation also permit some long-lasting development processes: Trainers from other ball sports such as volleyball, basketball and handball have taken an interest in the campaign.

At the moment SUVA is working with different ball sport associations in a joint effort to introduce a similar training programme to their sports.

“The 11” also involved a fair play campaign in addition to the training programme. A lot of

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work and effort has been put into this by all clubs in all games. This positive groundwork definitely helps to lift the level of fair play in football.

“The 11” campaign has definitely focussed attention on prevention as a topic in football and there has clearly been a concerted effort in making it work.

### **Tier 7: Quality of campaign structure and processes**

#### *Relevance of the tier*

The relevance of this tier (co-ordination and communication between the three project partners – SUVA, SFV, F-Marc) consisted of addressing any difficulties or issues as quickly and pragmatically as possible.

#### *Method description*

An analysis of the campaign structure and processes was not a part of the evaluation. These aspects were looked at as part of project management. In the implementation phase, the previous experience and opinions of the key people from SUVA, SFV and F-Marc were recorded by an external evaluator and reported back to the project organisation in the form of memos. These were in terms of the core implementation steps, e.g. training the instructors. This feedback was promptly

provided to the project team in a systematic manner and thus improved the ability of the project team to act.

#### *Use for the prevention campaign*

Communication within the project organisation was adequate. There was a strong network and good cooperation between the various partners and other key people (especially coaches). Permanent communication with one another and open feedback was shown to be a successful approach with a flexible structure.

The evaluation allowed the project organisation to:

- test the feasibility of the measures prior to the campaign, to plan realistic goals and approaches, and to establish reference values for measuring success;
- to recognise acceptance of the measures during the campaign, to see how well they were implemented, and to make quick adjustments. The initial instructor courses reinforced how important a process evaluation was for identifying potential mistakes in implementing “The 11”; and
- to measure the success of the campaign after it had ended and to determine exactly what the strengths and weaknesses of the campaign were, that is, to identify the reasons for success or failure.

All of this evaluation feedback also acts a motivator for the target groups (it works!).

### 8.3 Austria, AUVA: “BABA UND FALL NET!”<sup>13</sup> prevention campaign

#### Campaign overview

Nearly a third of all work accidents in Austria are a result of tripping or falling. As in many other accidents, the greatest risks are a lack of safety measures, unsuitable equipment and above all carelessness. The aim of the “Baba und fall net!” campaign is to increase awareness of the danger of falling in day-to-day life and to prevent accidents in Austrian businesses and schools.

#### Target groups

The target groups of the campaign were all people insured by the Austrian Workers’ Compensation Board (AUVA). This includes all self-employed and salaried people in Austria with the exception of people insured with specialist insurance providers (Insurance Institution for Railways and Mining, Social Insurance Institution for Farmers, and Insurance Institution for Public Employees). Also included were all school and university students in Austria.

#### Measures

The measures that were used in the campaign were divided nationally and regionally (explained in more detail below). The nature of the information material will be dealt with separately.

#### 1. National measures

The campaign started on 13 September 2007 when it was launched at a press conference by federal minister Dr. Andrea Kdolsky and councillor of commerce Helmut Klomfar. The first wave of activities took place between the middle of September and the middle of October 2007 with promotion on TV, radio and cinema as well as in metro stations and on trams in the city of Graz. From October 2007 to June 2008, AUVA published articles about the campaign in their own media. From October 2007 to December 2007, six half-page advertisements appeared in the *Kronenzeitung*, Austria’s highest circulation newspaper.

The second wave took place from May to June 2008. From August 2008, there was an Internet competition with the chance to win one of four tickets to an evening with Roland Düringer (a well-known Austrian entertainer). Press releases, PR articles and advertising in national media also took place at this time.

#### 2. Regional measures

The national advertising and PR activities in the first phase were supplemented with regional activities. These included reports about the start of the campaign, regional events, company and school events and advertising in regional media.

<sup>13</sup> “Baba und fall net” is from the lyrics of a popular Austrian folk song and can be loosely translated as “Bye bye and don’t fall”

### 3. Information material

A large and diverse range of information material was developed for businesses. This included programme folders, checklists, posters, brochures, info-DVDs and a “Balancing for Beginners” training programme.

Information was also specially developed for schools. This included information packs and brochures for teachers; activity and lesson materials, posters and info-DVDs for the students. The DVDs contained the TV commercials as well as all the information material for each of the target groups. There were also give-aways such as coffee cups and mousepads which were distributed to the target groups.

### Resources and Costs

The estimated total cost for the first phase of the “Baba und fall net!” prevention campaign was 2 million euros. In the event that this was successful, a second phase would take place and this actually was the case. The budget for the first phase of the AUVA campaign can be broken down as follows (in euros):

Preparation	50,000.00
Advertising and information material	1,600,000.00
PR	120,000.00
Evaluation	50,000.00
Implementation budget	150,000.00
Reserve	80,000.00
<b>Total</b>	<b>2,000,000.00</b>

Company contacts and training			
	Target	Achieved	Success rate
Accident Prevention Service	5,600	3,843	69 %
oAUVA SME Service	80,000	64,058	80 %
Total	8,600	67,901	78 %
Training units	150	211	141 %
School contacts			
Accident Prevention Service	660	736	111 %
Orders			
1. Accident Prevention Service – Companies and schools		3,116	
2. AUVA SME Service		8,965	
3. Total		12,081	
4. Total number of items		ca. 805,000	

## Evaluation team

The project leader was responsible for the campaign evaluation. He was supported by the members of the project team and the statistics department. Data from opinion polls was provided by an external opinion research institute.

## Tier 2: Campaign presence

### *Relevance of the tier*

The operational measures were retained because the campaign was designed to have an effect at two levels. The media activities provided the basis for the operational measures used by the prevention coordinator in the company. As such, a broad understanding of the campaign and its aims could be assumed.

### *Method description*

The operational target numbers for the first phase of the AUVA campaign were approximately 85,600 company contacts and intensive consultations together with approximately 150 teaching units in seminars and 660 school contacts.

The target values and the achieved values were as follows:

### *Use for the prevention campaign*

The target values for the operative measures ensured that there were comparable resources available for the campaign.

-

## Tier 4: Level of awareness

### *Relevance of the tier*

The quality of the advertising was investigated by an opinion research institute which looked at how the advertising was perceived, assessed and accepted.

### *Method description*

1,000 Austrians aged 18+ were randomly selected from the telephone directory and then the target person was selected based on a quota procedure. The surveys were conducted by telephone from the institute's premises in Vienna. The assessment was done using factor weighting according to Media Analysis 2006 and the Austrian census 2001. The maximum margin of fluctuation was 3.2 per cent. An OGM<sup>14</sup> survey was used for a pre-test prior to campaign start, an interim test after the first wave of activities and a post-test after the second wave of activities. A Focus<sup>15</sup> survey was used to assess advertising parameters.

<sup>14</sup> OGM stands for *Österreichische Gesellschaft für Marketing* – an Austrian opinion research institute..

<sup>15</sup> Focus refers to *Media FOCUS Research Ges.m.b.H.* – an Austrian opinion research institute

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### OGM survey

During the course of the campaign, three OGM surveys were conducted on the topic of assessing the risk of accidents involving falling:

50% of the people surveyed estimated the overall risk of falling accidents as high/quite high. 25% of them rated their personal risk as high/quite high. The respondents were generally of the opinion that accidents as a result of falling could be prevented by people paying more attention (increase from 84 to 87%).

The advertising recall rate increased during the course of the campaign from 35 to 41% and the impact factor was measured at 14% (the percentage of people who, unprompted, named the AUVA as the organisation responsible for the campaign). The TV commercials had the highest recall rate.

### Focus survey

According to the Focus survey, awareness of the prevention campaign was above aver-

age at 46%. Respondents rated the image as modern (43%), original (43%) and easy to understand (60%). Compared to private insurance companies that advertise heavily, these results can be seen as above average.

### *Use for the prevention campaign*

The information provided by the campaign evaluation could justify the funds used and also could be used to further adjust the campaign. For example, the number of TV commercials needed to be increased in the second phase of the campaign (which resulted in a significant increase in awareness and assessment).

### Tier 6: Cost-benefit analysis

#### *Relevance of the tier*

Aside from the fact that preventing accidents from falling can reduce or prevent suffering, the issue of cost effectiveness also needs to be looked at. As mentioned above, almost a third of all workplace accidents in Austria are as a result of falling or tripping. A reduction in this high number would inevitably result

Table 9:  
Development of accidents due to falling

	Salaried employees	Diff. +/-	% +/-	Students	Diff.	% +/-	Employees plus Students	Diff. +/-	% +/-
24 mths before campaign	32 530			17 691			50 221		
Phase 1	31 161	-1 369	-4,2	18 619	928	5,2	49 780	-441	-0,9

Table 10:  
Development of other accidents (not due to falling)

	Salaried employees	Diff. +/-	% +/-	Students	Diff.	% +/-	People insured by AUVA	Diff. +/-	% +/-
24 mths before campaign	84 783			38 761			123 544		
Phase 1	85 873	1.090	1,3	38 732	-29	-0,1	124 605	1 061	0,9

Table 11:  
Development of people insured

	Salaried employees	Diff. +/-	% +/-	Students	Diff.	% +/-	Total	Diff. +/-	% +/-
24 mths before campaign	2 747 999			1 081 966			3 829 965		
Phase 1	2 837 886	89 887	3,3	1 065 842	-16 124	-1,5	3 903 728	73 763	1,9

Table 12:  
Development of accidents due to falling/1000 people insured

	Rate			% +/-		
	Salaried employees	Students	Total	Salaried employees	Students	Total
24 mths before campaign	11,8	16,4	13,1			
Phase 1	11	17,5	12,7	-6,8	6,7	-3,1

Table 13:  
Development of other accidents/1000 people insured (not due to falling)

	Rate	% +/-
	all other accidents	
24 mths before campaign	32,2	
Phase 1	31,9	-1,0



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(in some cases) to significant cost reductions in both companies and also the AUVA.

### *Method description*

The share of the total number of accidents during the campaign period was deducted from the share of the total number of accidents before the campaign and multiplied by the average cost of an accident involving falling. This amount was compared to the costs of the advertising (not the operational measures).

### *Accident statistics*

#### *Disability benefits statistics*

In order to evaluate the first phase of the campaign, the average of the data from the comparable period of October 2005 to September 2007 was used (this was the previous two years). Only registered workplace accidents were included in the data (as of 23 Feb 2009).

The data in Table 9 shows that during the campaign, the number of accidents due to falling for salaried employees decreased by 4.2%. Comparing this to the increased number of insured people in the same period, the decrease was actually 6.8% per 1000 insured people which was the strongest effect seen in the campaign (see Table 12).

Table 14:  
Disability benefits due to an accident involving falling

	Salaried employees	Diff. +/-	% +/-	Students	Diff.	% +/-	Em- ployees plus Students	Diff. +/-	% +/-
24 mths before campaign	2 131			0			2 131		
Phase 1	2 022	-109	-5,1	0	0	0,0	2 022	-109	-5,1

Table 15:  
Disability benefits due to all other accidents (excluding falling)

	Salaried employees	Diff. +/-	% +/-	Students	Diff.	% +/-	Em- ployees plus Students	Diff. +/-	% +/-
24 mths before campaign	2 621			2			2 623		
Phase 1	2 547	-74	-2,8	3	1	50,0	2 550	-73	-2,8

The number of accidents due to falling for students increased by 5.2% with a drop in student numbers of 1.5%. This equates to an increase in accidents due to falling of 6.7% per 1,000 insured people. This increase can be attributed to the campaign insofar as the campaign encouraged teachers to be more diligent about reporting accidents due to falling.

In comparison, there was an increase in the number of other accidents (excluding falling) for salaried employees of 1.3% and for students a slight decrease of 0.1%. Overall the number of workplace accidents (excluding falling) increased by 0.9%. In relation to the increased number of insured people this equates to a 1 percent decrease in all other accidents (excluding falling).

	Sum	Diff. +/-	% +/-
24 mths before campaign	648 503		
Phase 1	628 748	-19 755	-3,4

Table 16:  
Mean annual cost of benefits paid due to an accident involving falling (in euros)

	Sum	Diff. +/-	% +/-
24 m vor Aktion	857 990		
Phase 1	847 374	-10 616	-1,2

Table 17:  
Mean annual cost of benefits paid due to an accident not involving falling (in euros)

### *Treatment days (inpatient)*

	BHT stat.	Diff. +/-	% +/-
24 mths before campaign	114 416		
Phase 1	45 507	-	-

Table 18:  
Treatment days (inpatient) for all workplace accidents

	BHT stat.	Diff. +/-	% +/-
24 mths before campaign	48 601		
Phase 1	19 870	-	-

Table 19:  
Treatment days (inpatient) for falling accidents

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There was a reduction of 5.1% in the number of early pensions compared to the same period 24 months prior to the campaign. A reduction in all other accidents was also reported. This was 2.8% for salaried employees and less for students. The development of accident benefits for students is not significant due to its low frequency.

The average annual cost of paying benefits to people involved in accidents decreased compared to the same period prior to the campaign. Accidents not involving a fall showed a decrease of 1.2%. However, there was a decrease of almost three times this, namely 3.4%, in the amount paid out on average per annum to people involved in accidents due to falling. The annual benefit costs should be multiplied by the number of years the person receives the pension.

Tables 18 and 19 show the number of inpatient treatment days so far. Due to the fact that this data has not yet been completed, no assessment has been done.

### *Sick leave days*

Statistics on the number of sick leave days are always prepared mid-year and so only include data from October 2005 to December 2007. Therefore, a comparison with the period October 2007 to September 2008 is not possible.

### *Cost-benefit analysis*

The data from the accident statistics was used to conduct a cost-benefit analysis. A work accident of a salaried employee costs AUVA on average €4,200. The total cost of the first phase of the campaign was €2,000,000. Thus, the break-even point was 476 prevented workplace accidents in the period between October 2007 and September 2008. In reality, there were 1,369 less accidents due to falling in these 12 months than in the middle of the previous 24 months.

## 9 Literature

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