



EUROPEAN NETWORK OF QUITLINES

Guidelines to Best Practice
for Smoking Cessation Websites



FOREWORD

Smoking cessation is one of the key factors in decreasing tobacco-related morbidity and mortality. Smoking cessation services on the internet provide an easy access to knowledge, support and communities of quitters. However, there is little information about the reliability or effectiveness of the sites and so the project "Smoking cessation on the Internet in European Union countries 2005-2007" was launched. The project aimed to produce a study on non-profit smoking cessation websites in the EU and quality tools for evaluating and developing smoking cessation websites.

The first non-profit smoking cessation websites in Europe were founded as early as in 1997 in Switzerland and in the Netherlands. According to the study, in 2005 there were non-profit smoking cessation websites in 18 out of 28 European countries. These services had been launched quite recently, and in several European countries, smoking cessation websites were still missing or under development. Many of the websites were launched and maintained by non-governmental organisations.

This project forms part of the work of the European Network of Quitlines and is funded by the European Commission. The European Network of Quitlines (ENQ) aims to maximise collaboration between Quitlines in Europe and to develop best practice tools and policy recommendations. ENQ currently has member Quitlines in 28 countries across Europe.

ENQ received a prestigious WHO World No Tobacco Day Award in 2006 which recognised the valuable contribution and achievements of the Network in supporting the tobacco control movement and particularly smoking cessation in Europe. The launch of the EUROPEAN NETWORK OF QUITLINES Guidelines to Best Practice for Smoking Cessation Websites continues this important work.

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INTRODUCTION

Background of the guidelines

Background organisations

Instructions for use

Background material and methodology

BACKGROUND OF THE GUIDELINES

The Guidelines to Best Practice for Smoking Cessation Websites have been developed under the framework of the European Network of Smoking Prevention ENSP, in the project “Smoking cessation on the Internet in European Union countries 2005-2007”.

The European Commission New Public Health Programme 2003-2008 co-funded the project with the National Public Health Institute of Finland, KTL. The European Network of Quitlines, ENQ has acted as coordinator between the ENSP and KTL. KTL has undertaken the main practical responsibility in designing the guidelines and the accompanying evaluation tool see:

www.enqonline.org/evaluationtool

Project objectives were to create:

1. A review of smoking cessation websites in the area of the European Union and a more detailed descriptive study on internet cessation services in specific countries
2. A network of experts for smoking cessation websites
3. An evaluation tool for assessing quality and usability of smoking cessation websites
4. Best practices guidelines for smoking cessation websites

In addition, the more general aims included developing the internet as a medium of public health, as well as promoting the possibilities for equality of health through the internet and bridging the digital divide.

BACKGROUND ORGANISATIONS

The National Public Health Institute of Finland, KTL

The National Public Health Institute in Finland, KTL is an institution for research and expertise under the Ministry of Social Affairs and Health. It produces research-based information on health and promotes citizens' possibilities to live healthy lives.

KTL is responsible for research, expertise and health monitoring, as well as for the development and assessment of public health services. It is accountable for education, training and the dissemination of health information. In addition to its role in the national sphere, KTL participates in international collaboration.

The European Network of Quitlines

The European Network of Quitlines, ENQ is an initiative aimed at maximising collaboration between those European and Accession countries which provide Quitline services and at enabling more smokers in Europe to quit.

The network was established in 2000 and had grown from six to 28 members by 2007. The Network is funded by the European Commission through the European Network for Smoking Prevention ENSP.

ENQ shares expertise and experience in running quitlines. ENQ also offers assistance in establishing new quitlines and examines the range of practice and evidence of success. In addition, it disseminates this information and develops the ENQ Quality Standard Accreditation across Europe.

Programme of Community action in the field of public health (2003-2008)

The programme, which complements national policies, aims to protect human health and improve public health overall. The programme was adopted on 23 September 2002 by the European Parliament and the Council for a 6 year period, 2003-2008.

The programme is based on three general objectives: health information, rapid reaction to health threats and health promotion through addressing health determinants. Activities such as networks, co-ordinated responses, sharing of experience, training and dissemination of information and knowledge will be inter-linked and mutually reinforcing.

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INSTRUCTIONS FOR USE

What are the guidelines for smoking cessation websites?

The guidelines have been developed to support constructing, reconstructing, complementing, evaluating or ensuring the quality of the smoking cessation website. Throughout the website design or re-design process, it is possible to take advantage of the guidelines for each step of the production.

Who can use the guidelines?

The guidelines are meant for organisations and service providers planning a new website or responsible for an existing smoking cessation website. The guidelines can also be useful for smoking cessation experts and E-Health specialists working with other health-related issues and the internet.

How to use the guidelines?

These guidelines form a basic handbook for smoking cessation websites. They cover the whole cycle of such websites from production to evaluation and development, offering checking lists of available options on the contents and services, as well as giving directions for quality checks.

The guidelines have been planned in conjunction with the online evaluation tool, which is available at the ENQ website at:

www.enqonline.org/evaluationtool

The guidelines can be used both when planning a new website or improving an existing one. The emphasis of the online evaluation tool is on already existing websites, their quality control, content and service check. Taken altogether, quality criteria and the content and service checking lists in the guidelines and the online evaluation tool are identical.

The guidelines and the evaluation tool are meant to complement each other in order to guarantee the highest possible quality, functionality and accessibility of the websites as well as the reliability, topicality, versatility and intelligibility of their contents.

The guidelines include the following parts: context of smoking cessation on the internet, definition of a smoking cessation website, production process,

content production, ensuring quality and evaluation and development. Every section works individually, so it is possible to use one of them independently according to need.

The guidelines include both non-evaluative and evaluative elements:

1. Non-evaluative checklists. These lists help to recognize available opportunities for smoking cessation websites and the website production process. With different ideas, it is easier to identify the needs of website production and areas of development.
2. Criteria and recommendations for a high quality smoking cessation website. While some quality criteria are optional, it is highly recommended to take into account certain criteria when aiming to ensure e.g., reliability, credibility, usability and functionality of the website. Some recommendations can even be considered imperative with regard to quality.

BACKGROUND MATERIAL AND METHODOLOGY

The background materials of the guidelines have been collected from different sources. The following sources form the basis for the guidelines:

1. E-Health quality certificate systems, e.g.:

- **E-Europe 2002.** Quality criteria for health-related websites by the European Commission ¹.
- **HON-code - Health on the Net.** An accreditation system for health-related websites, founded and maintained by a Swiss non-profit, non-governmental foundation ².
- **URAC.** An American, independent, non-profit organization for promoting health care quality through its accreditation and certification programs, including standards for health-related websites ³.
- **MedCertain.** EC-funded project for quality assessment of health-related websites ⁴.
- **DISCERN.** A questionnaire providing users with a way to assess the quality of information on health problems. DISCERN can also be used by authors and publishers as a guide to the standard which users are entitled to expect ⁵.



- **Wrapin.** Wordwide Online Reliable Advice to Patients and Individuals ⁶.
- **Criteria for Assessing the Quality of Health Information.** Health Summit Working Group ⁷.

For defining quality criteria, several of the most commonly known accreditation systems and quality recommendations for health-related websites were examined and useful elements for the guidelines were extracted. Several criteria applicable to every health-related website were also considered necessary to guarantee both the credibility and reliability of the smoking cessation websites. All the criteria for information and interactive services in these guidelines have been modified, based on the above-mentioned quality accreditation systems.

2. Evidence-based research on smoking cessation on the internet

In order to find out about evidence-based research on smoking cessation websites, useful literature was searched through PubMed, Web of Science and PsycINFO with the different combination of the words smoking, cessation, quitting, health, internet and website. The relevant literature was listed and a short literature review was carried out. Especially, articles discussing quality connected to smoking cessation websites were utilized as a point of departure ^{8,9}. In addition, the U.S. Department of Health and Human Services Clinical Practice Guideline served as a point of departure for mapping the necessary contents for a smoking cessation website ¹⁰. (See also Section 2, Context / Why to use internet for smoking cessation and the References.)

3. Smoking cessation websites

Smoking cessation websites were searched in Google with the words smoking, cessation and quitting e.g. in English, French, German, Swedish and Finnish. In addition, we asked the members of the ENQ in various European countries to identify the existing non-profit smoking cessation websites in their countries. Websites with other health promotion aspects were also accepted as long as they contained pages or sections with smoking cessation information or services. In order to list useful elements and functions on smoking cessation websites, several websites in English, Swedish, French, German and Finnish were examined and useful elements for the check lists were chosen. (List of the websites: see Annex 1 – List of smoking cessation websites revised for the Guidelines to Best Practice for Smoking Cessation Websites)

4. General manuals for designing websites

In order to define the elements of a production process for a website, general manuals for designing of websites were identified and examined ^{11,12,13}. Elements for the production process of the websites are presented in Section 4, Production Process.

5. The ENQ guidelines for telephone services

The European Network of Quitlines – Guide to Best Practice for telephone services has served as a model for these guidelines ¹⁴.



CONTEXT OF SMOKING CESSATION ON THE INTERNET

Tobacco use, smoking cessation, internet & health care
Why use the internet for smoking cessation

TOBACCO USE, SMOKING CESSATION, INTERNET AND HEALTH CARE

Tobacco is the most widely used addictive substance in the world. It causes a dependence syndrome with physiological, psychological and social components ^{10,15}. Tobacco is in common use in the European Union region, daily smoking rates varying from 18% to 45% in the different countries ¹⁶. Tobacco use is also a major public health threat causing about 2 million premature deaths annually in the European area only ¹⁷. It is also a strong determinant of socio-economic differences in mortality ¹⁸. The majority of smokers acknowledge the health risks of smoking. For example, in Finland every year four out of ten smokers try to quit smoking ¹⁹. However, quitting results per single attempt are relatively low: in the most intensive clinical trials only every third person quits smoking per attempt while at the population level 2-4% of smokers succeed every year.

During the last few decades, several tools have been introduced to aid in quitting, such as replacement therapies, quitlines and counselling services. The political and social climate in the European Union has favoured eliminating tobacco use. In most countries, public health policy agendas have included smoking cessation since 1970's. Currently, health care professionals are accepting more and more responsibility to support smokers in quitting. Some quitting methods have been evaluated as effective and the evidence for most cessation therapies is good, such as physician's advice or telephone counselling ²⁰⁻²³. In general, more intensive treatments, e.g. using multiple tools and intensive counselling, produce more successful outcomes.

Smoking cessation services vary a lot between countries ²⁴ and within the EU. Smoking cessation treatment has become an adjunct of secondary importance in many ways in health care, primarily because of non-existing treatment options, but also for cultural reasons. A few countries, like the UK, have invested resources on cessation treatment programmes and incentives of medications, but in general the systematic treatment of smokers within health care is rare. Occupational health and private clinics also offer cessation services to their customers. It is evident, that the majority of smokers try to quit without any contact with health care. However, those with extreme difficulties with quitting should be supported by health care. At population level cessation promotion has included campaigns, materials and competitions, and although their efficacy on quitting has been relatively low ²⁵, they raise awareness and influence the social climate.

The internet has the potential to aid health care and to support individual smokers in promoting and encouraging smoking cessation. However, the internet is not in wide use as a part most health service systems. Currently, health services provide information on their services, but health promotion websites for citizens – including smoking cessation websites – do not belong to their sphere. Telephone services, which could complement health services, are equally underused. On the other hand, health promotion websites or telephone services are more often carried out by non-governmental organisations, which is also the case with smoking cessation websites. The internet would ease the burden of health care if used systematically in patient work, leaving more time for those needing more intensive treatments.

Nevertheless, smokers have found the smoking cessation websites. In European countries the most popular smoking cessation websites are accessed by 60,000-100,000 visitors monthly ²⁶. Out of those seeking information on smoking cessation from the internet, 76% of the respondents were current smokers; 17% were recent quitters having quit within the last 7 days, and 7% had quit more than 7 days prior to the date of accessing the sites. Half of current smokers indicated their willingness to quit within one month. Current smokers were more likely to seek information on how to quit and on medications, whereas former smokers were more interested in how to cope with withdrawal ²⁷.

The first trial reporting telephone as part of intervention was reported in 1991 from the US with good results ²⁸. Many smoking cessation websites have their roots in smoking cessation services offered through telephone quitlines. Quitlines were originally developed in the US and Australia in the 1990s. Then many services started to utilise the internet for disseminating more information for callers. Soon the internet was being developed on its own rather than as a subsidiary tool. One reason for this was that health has been a major favourite theme on the internet since the beginning. Therefore, tobacco websites were built both by non-commercial and commercial organizations. In addition, computerised programmes combined with the internet opened up new possibilities for tailoring and customising. However, the comprehensive history of the development of internet smoking cessation has not been written yet.

Health care decision makers and policy makers require evidence of effectiveness and cost. This applies to health-related websites as well. Some advantages of smoking cessation websites, like widespread audience reach and repeatability of use are known, but at the same time more research is needed, e.g., on efficiency as well as on some of the additional and potential capacities of the internet.

The internet is already on the health professionals' desks, so why not use it? Nowadays, clinicians face growing pressure to offer patients reliable information on smoking cessation or other health promotion topics necessary for their treatment. Referring patients to a well-designed website that offers access to the best available information or health promotion programmes is an appealing alternative to offering handouts or impromptu advice ²⁹⁻³¹.

In a clinical setting a smoking cessation visit lasts, at longest approximately an hour, but a smoker needs the possibility of support 24 hours a day. The internet can be reached any time for current needs and repeatedly. These advantages interest health care givers, as use of smoking cessation services on the internet would most likely increase their effect on patient behaviour. The internet could also provide a communication tool between quitters and professionals, but these advances will require new thinking and skills on the part of health professionals.

WHY USE THE INTERNET FOR SMOKING CESSATION

In order to find out about pertinent evidence-based research on smoking cessation websites, useful literature was searched through PubMed, Web of Science and PsycINFO with different combinations of the words smoking, cessation, quitting, health, internet and website.

The relevant articles were listed and a short literature review was carried out. Advantages, efficacy and cautionary aspects of internet smoking cessation were especially considered. However, a large variation in quality and scope of the researches could be noticed. Also, relatively little evidence-based research on smoking cessation websites or closely related issues like tailored smoking cessation programs could be found. For instance, not many randomised control trials on internet smoking cessation could be identified.

Research on the effects of the health-behaviour websites is relatively complicated to carry out, because of inherent difficulties with controlled trials. The control groups cannot be restrained from searching for alternative cessation programs and websites from the internet, which might be very similar to the treatment being obtained by the treatment group. It might be difficult to guarantee identical treatment for every participant in the treatment group because web programmes can be used in different ways. Furthermore, online identification of research subjects is challenging. One person might participate under several times with different identities or someone else could fill in the surveys instead of the validated participant ^{32, 33}.

In addition, websites differ greatly from one another and therefore are not comparable⁸. Results concerning one website cannot be generalised and a website or an online program proved efficient does not prove other, different websites or programs efficient. The potential effectiveness of a site also depends heavily on quality issues, e.g. usability, currency, intelligibility and accessibility, which impact a visitor's ability to find relevant information³⁴. Furthermore, an individual smoking cessation website may contain more or less effective components.

Wide audience reach

Nevertheless, several advantages of using internet as a cessation media were evident and mentioned in several articles, e.g. wide audience reach and repeated usage potentials. The internet is available 24 hours a day to a large number of smokers at times suitable for them. Along with an increased access to the internet by a larger audience, it has also become more and more equal in terms of age, income, education, or race, falling within the reach of most groups. Moreover, although the internet might arguably still be less accessible to lower socioeconomic groups, it nevertheless has the potential to be an efficient mode of delivery for smoking cessation interventions^{8, 35}.

When emphasising the audience reach, the question of actual efficacy, the cessation rate as a consequence of web-based cessation program, remains open. However, by the very fact that the internet is available to a very large number of smokers, even with potentially lower efficacy, the overall impact in the smoking population would be greater than that achieved through conventional methods with a lower range of reach. The internet thus has a substantial capacity to influence smoking in the population through smoking cessation websites^{36, 37}.

Repeatability, intensity and possibility to pro-activity

A significant feature of smoking cessation websites and other internet-delivered health promoting programmes is that they can be used repeatedly. Most smokers require several attempts before quitting. Outside of the internet context, there has been strong evidence of counselling intensity leading to cessation success. Research on the number of

follow-up visits and support sessions reveals that the more frequent the follow-up sessions the higher the rate of abstinence, in both general counselling and telephone quitlines. It can be concluded that the possibilities for repeated quitting attempts are indispensable for effective smoking cessation interventions and since proactive counselling outside of internet context has proved efficient, both aspects can be utilised by smoking cessation websites on the internet^{10, 36, 37}.

Anonymity

The possibility for anonymity is seen as an advantage by many internet users. Many website users appreciate anonymity with health issues, which can often be delicate and some of them, like smoking, even stigmatising. Online anonymity, among other things, offered by websites might thus encourage those website users who wouldn't otherwise find a suitable forum for themselves to participate in³⁶. On the other hand, anonymity is a two-edged sword which might possibly lead to a low level of commitment with some website users⁸.

Online peer and professional support – a question of efficacy

There is still relatively little information on the impact of different interactive elements on smoking cessation, except for computer-tailored programs³³. However, some interactive social functions, especially peer support forums and personal stories, on websites are more popular and used more frequently than other functions. Also, the average time spent on an interactive website is longer, despite the fact that their online efficacy has not been verified^{33, 38}. There is strong support for – albeit outside the internet context – that group therapy is better for helping people to stop smoking than self-help materials. With group support, the chances of quitting are more than doubled. In addition, individual counselling can help smokers quit as the intensity of professional counselling increases its effectiveness. There is however some preliminary evidence for online peer support efficacy³⁹.

Other findings lend support to the higher efficacy of individually tailored materials in comparison to the standard, although the effect is not necessarily maintained in the long run^{25, 40-42, 43, 44, 45}. One of the largest efforts reported as a randomised control trial with smoking cessation on the internet has been



an Australian research project. The number of participants, recruited from the callers to a quitline in Victoria was 1,058. A 6-month sustained abstinence was examined in a 12-month follow-up. Abstinence in a computer-tailored group was 20%, compared to a control group with standard printed material, where abstinence was 12% ⁴⁶. There are also studies showing the effect of the intensity in the use of the internet: the more you are engaged, the more you gain ⁴⁷ or the more repetition you get, the better the results seem to be ⁴⁸. In treating diseases like cardiovascular diseases, self-management of disease has also been shown to improve outcomes ⁴⁹.

These findings give support to the use of both interactive peer and professional support functions in the internet context as well. The importance of interactive capacities cannot be emphasized enough when comparing internet to print materials, and at least a basic set of interactive functions is recommended for inclusion in a cessation website. However, more research is needed when comparing interaction on the internet to face-to-face or other forms, like telephone interaction.

In conclusion

There are many clear advantages with smoking cessation websites on the internet, like wide audience reach and possibilities to repeated use, anonymity, tailored advice, pro-activity as well as peer and professional support. Still, more scientifically valid research is needed regarding the impact and efficacy of smoking cessation websites. Equally, there are different user profiles and different motivational levels of website users, including low commitment and occasional users. Therefore, no final conclusions can be drawn from frequency or popularity of smoking cessation websites or some individual functions on a website.

Likewise, smoking cessation websites are extremely different and thus not directly comparable. They exist in a variety of formats and quality ⁸. Therefore the proved efficacy of a specific smoking cessation website does not prove other websites effective. But when one website is proved efficient, one should, as far as possible, analyze the elements and features that make it efficient.

At the same time the possibility of digital exclusion should be kept in mind. Even though internet use is becoming more and more common among European populations, the fact that there are still groups who don't have access to it needs to be taken into consideration and addressed as well.



DEFINITION OF A SMOKING CESSATION WEBSITE

Information, expertise, support and motivation for quitters



INFORMATION, EXPERTISE, SUPPORT AND MOTIVATION FOR QUITTERS

A smoking cessation website offers support and motivation for smoking cessation and abstinence through the internet. This may involve giving information, counselling and peer support to smokers and their friends and relatives. The ultimate aim of a smoking cessation website is to motivate and support people to quit, and to support their abstinence maintenance.

There is tobacco-related information in abundance on the internet. Nevertheless, the websites which do not provide information on cessation or encourage or engage people to quit are not smoking cessation websites. Therefore general tobacco control websites are not included in this guideline.

However, a section of a website, as a part of a larger entity, concentrating on smoking cessation issues can be considered as a smoking cessation website.

Smoking cessation websites can include:

- Information web-pages on cessation
- Automatic interactive functions, like a test or a tailored cessation program
- Online interactive functions, like a peer discussion forum, users' blogs or online professional support
- A website combining webs to other kinds smoking cessation services, like a quitline

An optimal smoking cessation website is a seamless system, which takes into account the following dimensions:

- Evidence-based knowledge and theoretical models on addiction, quitting and abstinence
- Supportive elements
- Optimal use of the potentials of the internet and its interactive features



PRODUCTION PROCESS

Operational framework

Construction process

Launch, promotion and user recruitment

Maintenance

When starting the production of a smoking cessation website, it is useful to define and take into account certain elements. Planning the entity carefully in advance facilitates production process. The operational framework of the website should be defined and the different phases of the construction process outlined, as well as the launch, promotion and maintenance of the website.

OPERATIONAL FRAMEWORK

At the beginning, defining the following elements provides the construction process:

- Organisation definition: what organisations are involved
- Roles & responsibilities of the participants: project team, what skills are needed, who does what
- Funding / resources (including construction and maintenance costs)
- Schedule: when and in what phases the plan is carried out
- Project communication: how do the project participants communicate
- Managing the website: how will the permanent service be managed (e.g. through advisory and operative board)

CONSTRUCTION PROCESS

The following issues will need mandatory attention in establishing appropriate service delivery:

- Concept plan including goals and target groups, project scope, draft on contents, structure and services of the website (see also Section 3, Content planning and sub-section Goal and target group definition)

- Invitation to tender for technical supplier, based on the concept plan
- Definition of technical solutions and delivery with the chosen technical supplier
- Detailed content planning (see also Section 3, Content planning)
- Construction
- User testing and piloting

LAUNCH AND PROMOTION FOR USER RECRUITMENT

Promoting the website is essential. Smokers can be recruited in a number of ways. The website can be marketed directly to the public through campaigns, but also non-profit marketing through various social, target-group specific networks is possible. Marketing and communications strategies can include e.g.:

- Television and print advertising
- Information campaigns
- Web marketing, e.g. an announcement on another sites visited by the same audience, linkage with other theme-related websites
- E-mail newsletters, print newsletters
- Search-engines, meta tagging and search engine optimization
- Collaboration with other health promotion initiatives
- Public relations activities in selected national venues
- Word of mouth, e.g., a tip about a website sent to a friend
- User-driven virtual environments, like YouTube
- Mediators like school and health care personnel as well as pharmacies
- Public health officers
- Cigarette packages



How to reach target audiences

It is reasonable to reflect the interests and regular forums of the target groups of the website. How to best reach the target audiences depends also on the other forums and media used by the target audiences. For instance, adolescents would be reached through forums different from those of pregnant women.

Traceability optimization

as part of promotion

- The website is listed in search engines like Google under search words such as tobacco, smoking, cessation etc. on average as among the first five hits in search-results
- The listing of the website in search engines like Google is followed up on a regular basis
- Necessary measures for search engine optimisation, like meta tagging and keyword definition for search engines, have been and will continue to be taken to improve listing in search engines
- The name of the website is clear, simple and easy to remember
- The website has its own URL

For traceability, visibility and circulation to as large an audience as possible it is recommended to find the website among the first five hits in the most common search-engine. At a minimum, it should be found among the first 10 hits. The higher listing a website reaches, the larger audience it gets and vice versa.

How to make website visitors to commit

There are different internet users with different levels of commitment, like occasional visitors, "surfers" or more committed frequent visitors. Therefore, the number of website visitors does not directly reveal the actual impact of the smoking cessation website in smoking cessation. It might be useful to take into account different user profiles when planning strategies for user recruitment and how to optimise the users' commitment to the website.

- Enrolling in the website as an option
- Own user-profiles for website visitors
- Tailored programmes
- Personalised follow-up mails, SMS's or calls
- Peer support services
- Carefully prepared elements of the website:

Proper target group definition, competent and appropriate contents, interesting concept and appealing services

- High-quality usability, functionality and maintenance
- A strategy to integrate user group generated content
- Utilising of target-group specific networking processes on the internet (Web 2.0, e.g. YouTube, Secondlife etc. other virtual environments)

MAINTENANCE

When planning the production of the website, one should also consider the life cycle of the website: is it meant for long-term or short-term use, like, e.g. campaign website. A website for long-term use requires financing for continuous maintenance and also, for further development, and that should be taken into account early in the preparatory phase.

Identify and define resources in order to maintain the website already at the planning phase. A common mistake that can be made is spending a great deal of money to create a website and then failing to budget for maintaining it. It can be easy to get resources for producing a new website, but keeping the website current and usable is as essential as its construction. Maintenance of the website is as crucial to the website as oil changes to the car. Unless maintained regularly, a website will quickly become dated and inaccurate.

Taking into account the maintenance contract as a part of the main contract with the technical supplier excludes the possibility of unexpected invoices. One should also take into account that maintenance of interactive services - especially online discussion forums and online diaries - requires more and different resources than a website with only information contents. Therefore maintenance should allow for the demands of the content.

Maintenance will ensure that:

- Content of the website is fresh
- Both internal and external links function well
- Possibilities of technical errors are minimized
- The compatibility with the newest browser versions is re-checked
- The website is submitted to the major search engines



CONTENT PLANNING

Aim and target group definition

Information contents: invite, inform and involve

Interactive services

Theoretical background

AIM AND TARGET GROUP DEFINITION

Defined goals and target groups form a part of strategic directions and the concept plan. Therefore, it is recommended to define goals, and especially the target groups of the website at the beginning of a content creation process. At the country level, cessation website aimed at certain target-groups should complement other cessation services and overlapping should be avoided ^{5,7}.

By defining the goals and the target groups, the contents, structure and functions of the website are rationally justified. The defined goals and target groups provide optimal follow-up to the end-users and the number of website visitors. Target group definition facilitates planning the contents relevant for the needs of the intended audiences.

It is also easier to launch and promote the website when target groups have been defined in the beginning. The central aims and target groups of the website should be obvious to the website visitor immediately when entering the website.

The smoking cessation website can include the following goals:

- To motivate and encourage people to quit
- To raise awareness on tobacco dependency
- To offer help, support and tips to smokers in their quitting process
- To support ex-smokers' abstinence maintenance
- To disseminate information on addiction and the risks of smoking
- To create peer support networks for quitters and ex-smokers
- To raise awareness of smoke-free activities

- To support national smoking prevention policies
- To promote the use of effective smoking cessation methods and treatments
- To inform about smoking cessation methods in general
- To promote cessation services on the internet to health care or education system

It might also be useful to reflect the following questions:

- What kind of messages we want to promote?
- What messages will serve our target group?

Target groups are the users of the website. Smokers at different phases of quitting are the primary target group. The target groups of the website can be classified e.g. according to age, gender and smoking habit, or other base ¹:

TOBACCO USE / SMOKING HABIT

- Heavy smokers
- Occasional smokers
- Pre-contemplators
- Contemplators
- Ex-smokers
- Experimenters

AGE

- Children and adolescents
- Adults
- Elderly

GENDER

- Men
- Women

OTHER

- Pregnant women
- Minority ethnic groups
- Vulnerable groups
- Parents
- Hospitalised smokers
- Smokers with psychiatric co-morbidity or chemical dependency
- Tobacco-related disease patients (e.g. COPD, cancer)
- Different occupational groups

SECONDARY TARGET GROUPS

- Those supporting someone to quit
- Persons exposed to second-hand smoke (passive smokers)
- Health care professionals
- Educational professionals

INFORMATION CONTENTS: INVITE, INFORM AND INVOLVE

Information creates the base for the smoking cessation website. Therefore, it is essential to reflect carefully on what kind of information is appropriate for chosen target groups and what motivates and empowers them. In addition, it is imperative to ponder what kind of structure is appropriate for content and what elements are most essential to be included in the website. Core information on smoking cessation combines aspects of tobacco addiction with phases of the quitting process. It encourages and motivates individuals to quit as well as supports the development of a smoker's personal skills in quitting ^{8,9}.

INFORMATION ON A GOOD SMOKING CESSATION WEBSITE – WHAT IS TAKEN INTO ACCOUNT?

Information on the quitting process is a point of departure for a smoking cessation website. Information for the smoker should be:

- Relevant to the chosen target groups
- Easy to use and apply in everyday life
- Motivating and empowering

- Directive and empathetic
- Evidence-based
- Timely
- Accurate

It should also:

- Follow accepted evidence-based guidelines for health behaviour change practice
- Indicate side effects and contraindications of therapies described on the site ⁹

MEDICAL INFORMATION ^{1, 3, 7, 9}

Health information sets its own requirements for formulating the information. For general accountability of the website, it is imperative to notify the website visitors clearly that the website is not meant to replace their relationship with medical care.

It is also vital that medical information is provided in co-operation with or checked by health professionals. For reliability and credibility of the medical content of the website, the authors, their credentials as well as sources of documents should be verifiable on demand.

It is also strongly recommended, with interactive services, that website users are aware when they are in contact with a health / medical professional.

TOPICALITY AND UPDATING ^{1, 3, 7, 9}

To ensure general reliability, information contents should always be revised when necessary but at least annually. The topicality of the website is made visible to the website visitor on the one hand by dates of creation, and, on the other, by the dates of updating. Updated information is convincing for the website visitor and visible updating dates offer the central indicator of the high quality of the information.

READABILITY ⁸

Readability is vital for intelligibility and thus a prerequisite for the information contents of the website. The optimal information on the website is logically structured and information is presented in a clear manner.

Texts should be simple enough for everyone and the use of editorial expertise is recommended. Readability testing will ensure the user-friendliness and appropriate level of text. Texts suitable for specialists are not recommended, though that level of information might be available too, e.g. as articles through hyperlinks. Clear headings and sub-headings for the text are recommended in the interests of the website readability, clarity and intelligibility.

INFORMATION ON SMOKING CESSATION

Information and advice offered by a smoking cessation website may include the following themes ^{8,10}:

Tobacco addiction

- Physiological addiction
- Psychological addiction
- Behavioural addiction
- Social addiction

Motivation and encouragement for quitting

- Motivating smoker to quit
- Reinforcement of motivation to quit
- Emphasising the personal relevance of quitting
- Clear, strong and personalised advice to every smoker to quit
- Risks of smoking (target group specific)
- Rewards of quitting
- Request to set a quitting date

Assessing willingness to quit

- Request to identify personally relevant reasons of smoking
- Request to identify personally relevant consequences of smoking
- Request to identify personally relevant benefits of quitting

Phases of quitting process

- Phases of quitting
- Information for smokers of different phases
- Assessment of readiness to quit

- Barriers and problems in different phases of quitting
- Withdrawal symptoms
- Abstinence

Support and skill-development

- Advice on cessation process
- Cognitive and behavioural coping skills and strategies
- Cessation planning - how to plan quitting
- Assistance in composing a personally relevant quitting plan
- Setting a quit date
- General problem solving
- Information on relapses and risk situations
- Prevention of relapses and fighting cravings
- Long-term maintenance of abstinence
- Reward system for abstinence or reduction
- Different support sources in quitting process
- Pharmacological support, its risks and suitability to different persons
- New alternatives to smoking
- Physical activity / sports as support
- Support for ex-smokers
- Information for quitters' "support persons", relatives or friends
- Life-style changes: Nutrition and diet issues and physical activity
- Information for medical professionals working with smoking cessation
- Contact details of clinics and places of support for smokers

Other areas

- Passive smoking and its risks
- Myths and facts about smoking
- Chemical consistency of tobacco and tobacco smoke
- Other tobacco products
- Visual material (photos/drawings) of the risks of smoking
- Information on smoking prevention, e.g. for schools
- Testimonials and personal stories on smoking cessation

- Public health burden caused by smoking
- Tobacco cultivation and environmental aspects
- Tobacco industry and lobbying
- Tobacco-related diseases
- Issues on quitting and weight
- Alternative quitting aid
- Information for medical professionals working with smoking cessation
- Contact details of clinics and places of support for smokers
- Oral tobacco / snuff

CRITERIA FOR INFORMATION CONTENT ^{1-3, 5, 7, 13, 35}

- Every page should raise awareness, maintain interest and motivate the user
- Content is current, continually updated and new dates are visible on the website
- To ensure the general reliability of the website, information contents should be revised at least annually
- There is awareness of recent trends in smoking, cessation methods and tobacco policy issues
- Information content is easily readable and understandable, taking into account the topic and intended audience
- Avoid jargon – use familiar words
- There are clear headings and sub-headings for topic areas
- It is explicitly mentioned that the website is meant to support, not to replace the relationship between website visitor and health professional(s)
- Health information is provided in co-operation with or checked by medical or other health professional(s)
- The names of authors and main sources of the documents can be verified on demand, when necessary
- Dates of creation (copyright date) are displayed on the pages of the website
- Dates of updating / editing are displayed and visible on the website

CRITERIA FOR CONTENT ORGANIZATION ¹³

The content can be organized in the following way in order to facilitate reading:

- Text divided into short, thematic pieces
- Text presented in short sections, short paragraphs, short sentences, bulleted or numbered lists, tables, pictures and examples
- Too dense or too small text is to be avoided
- Headings and subheadings used for each short section
- Headings made into a table of contents, if possible

INTERACTIVE SERVICES

Interactive services can maximise the potentials of the internet use as a smoking cessation support. It would be optimal to plan interactive services as complements to one another and to support information contents. A basic combination of tests and questionnaires, as well as peer and professional support functions would already cover a minimal set of appropriate interactive services, necessary for a high-quality smoking cessation website ^{25, 40-45}.

The website may offer some of the following interactive services:

SELF-ASSESSMENT TESTS AND QUESTIONNAIRES

- Risk behaviour measurement test
- Test for motivation or readiness to quit
- Test on nicotine dependence
- Test on psychological addiction or dependence level
- Test on social addiction or dependence level
- Test on money spent on cigarettes
- Test on personal smoking history or smoker's profile
- Test on withdrawal
- Test on risk awareness level
- Test on pros and cons of smoking
- Test on pros and cons of quitting

- Bulletin board
- Blogs or diaries for smokers and quitters
- On-line progress report of quitting process
- Feedback from the website maintainer to website users
- Peer support function other than those mentioned previously

PROFESSIONAL SUPPORT FUNCTIONS

- Frequently asked questions (FAQ)
- E-mail consultation published on the website
- Private e-mail consultation
- Online discussion groups steered by a professional
- Follow-up contact with the quitter through a website
- Computer-tailored smoking cessation programme including individually tailored, automatic feedback sent to quitter by mail or sms
- Contact form in order to order support materials
- Connections to other cessation services, like telephone quitline

CRITERIA FOR INTERACTIVE SERVICES 1, 3, 5, 7, 13, 35

- There is a user guide or service guide available for website visitors including specific services, terms, conditions, rights and responsibilities, uses and limitations of the interactive services
- In order to guarantee clear rules and codes of conduct for website users, a netiquette is recommended. Netiquette indicates what kind of discussion is allowed on the website
- Moderation of the website includes the right to remove inappropriate messages from the website. Criteria for removal are stated clearly in the netiquette
- Website users are always aware when they are in contact with a health / medical professional and when not
- Different kinds of peer support forums are moderated. In order to guarantee appropriate and safe peer support for all website users, it is highly recommended to moderate discussion forums

THEORETICAL BACKGROUND

A good smoking cessation website takes into account the results of evidence-based scientific research. It also strives to define suitable theoretical background(s) for the website. Awareness of the scientific results and theoretical basis can enhance the effectiveness of a smoking cessation website.

A definite and single theoretical standpoint for a website cannot be expected, because different theoretical viewpoints can serve different needs on the websites. Also, instead of one chosen theoretical standpoint, a combination of them might in some cases be more appropriate. However, awareness of scientific results and theoretical basis is recommended.

The following represent some examples of theories, which can be applied when creating web content or services:

- Stage theories, e.g. Transtheoretical Model for Stages of Change, Precaution-Adoption Process
- Hybrid theories, e.g. Health Action Process Approach
- Motivational theories, e.g. Health Belief Model, Protection Motivation Theory, Theory of Reasoned Action, Theory of Planned Behaviour, Health locus-of-control, Cognitive Dissonance Theory and Self-Determination Theory
- Theories for behavioural enactment, e.g. Social Cognitive Theory, Social Learning Theory, Self-regulation Theories and Operant Theory
- Personality theories, e.g. Big five, A/B personality type, Theories on Temperament
- Theories of stress and coping
- Social influence theories
- Social support theories
- Addiction theories
- Dual process theories, e.g. Elaboration Likelihood Model, Prototype/Willingness Model, Cognitive-Experiential Self-theory, Self-regulation Model



ENSURING QUALITY

Transparency

Usability & maintenance

Users' rights and privacy policy

Visual design

High quality consists of different attributes essential to a successful health-related website. The quality elements ensure, among other things, that the website is reliable and credible. They aim at making websites more accessible, intelligible and functional for a website visitor. Therefore, quality shouldn't be forgotten when planning a website. (See also Section 5, Content production.)

TRANSPARENCY 1-3, 5, 7, 8

Transparency is vital to ensure the reliability and credibility of the website. The website is much more approachable for the website visitor, if necessary contact details and background information is easily available on the website. In addition, due to accountability it is important to clearly define legal responsibilities for the website.

Promotional and other commercially sponsored material or editorial information content should not be mixed, but they should be easily distinguishable. The website visitor should also have an open access to advertising policy. This is important with health-oriented websites, where commercial interests are numerous.

For the transparency and reliability of the website, it is necessary to disclose:

- Contact details (name, logo, e-mail address / web-contact form, address, telephone number)
- Financial support sources of the website
- Producer organisation
- Maintainer organisation
- Editorial policy
- Advertising policy
- Editor-in-chief, legally accountable person (at least verifiable on demand)

USABILITY AND MAINTENANCE 1, 7, 8, 13

A usable website is easy to use, consistent, efficient, productive and well-organised. Therefore, it is an important part of productivity and outcome of the smoking cessation website. For high-level usability and functionality it is also recommended that technical functioning of the website is monitored on a regular basis ⁸.

CRITERIA FOR USABILITY:

- User-friendly navigability
- Fast-loading content
- The website structure is logical and internally consistent
- Navigation bars are consistent and link paths simple
- Navigation strategy places the more important links higher on the page
- Links are set as texts, not graphics
- The website works well technically
- Browser-accessibility of the website (with different browsers) is as extensive as possible and accessibility is ensured by the lowest-level generally available browser technology
- There is the possibility to print materials easily without losing legibility for instance in text format
- The website has been planned to be accessible to people with disabilities, enabling use, for instance, by the hearing and seeing impaired
- You can find useful tips for accessible websites on pages www.accessibility101.org.uk and www.w3.org/WAI

CRITERIA FOR MAINTENANCE AND FOLLOW-UP ⁷

- There is a feedback mechanism on the website regarding the services or contents, e.g. non-functioning links
- Technical functioning of the website is frequently checked and in case of any problems or faults, corrected as soon as possible
- Non-functional links have been controlled
- Functioning of the hyperlinks is checked up on a regular basis
- Use high visibility screen space, such as the upper right corner, to announce changes
- When introducing users to a renewed website, tell them what is happening and when the change will occur

USERS' RIGHTS AND PRIVACY POLICY ^{1, 3, 7}

For accountability and reliability, the privacy policy should be clearly described to the website visitor. For reliability and accountability, password protected parts should be fully justified. It is also useful to indicate password protected parts clearly, e.g. diaries or other personal tools. For credibility, it should be possible for users to opt out of the collection or removal of personal information.

Prompt answers to the users' feedback is helpful and a sign of good services. Therefore, it is recommended to answer as soon as possible, under normal circumstances in one week's time. The awareness of feedback response time gives the website user an idea of what to expect. This enhances overall reliability and usability of the website.

CRITERIA FOR PRIVACY POLICY

- Password protected parts are clearly indicated and visible to the website visitor
- Password protected parts are justified and justifications pointed out to the website visitor
- Website allows users to opt-out of the collection or removal of personal information
- If personal information is collected, the privacy policy is described to the website visitor: what information is collected about users, how

it is used and protected, for what purpose, what consequences to the users and the rights of users with respect to their personally identifiable information.

CRITERIA FOR FEEDBACK MECHANISM

- Website visitors' feedback is answered promptly
- Response time concerning the feedback is clearly mentioned
- The website makes it clear to the users when they are and are not in interaction with a health / medical professional in the area of interactive services

VISUAL DESIGN

Visual design is part both of usability and information contents. Visual design is a significant content element, which supports or complements information contents. Website visitors make nearly instantaneous judgments of a website's visual impression. The first impressions can affect subsequent judgments of perceived credibility, usability, and ultimately can influence commitment to the website. Creating a fast-loading, and visually appealing site can help the website succeed.

Visual design can be part of general accessibility, but an individual visual element can also function as an independent piece of information. Good pictures can, through animating the website, be essential to website accessibility and intelligibility. In addition to being informative, they can be, e.g. funny, entertaining, activating or appealing, thereby crucially facilitating website visitors' commitment to the website.

CRITERIA FOR VISUAL WEB-DESIGN ¹³

- Visual lay-out is clear, allowing high-level accessibility to the contents
- Visual design ensures a comfortable experience for each website visitor
- Pictures complement or animate the information contents
- Avoid horizontal scrolling

EVALUATION AND DEVELOPMENT

Usage monitoring

Data collection and user analysis

Self-Evaluation

External evaluation

If you want to maximise the potential of the website, regular evaluation and development of the website is necessary. It might be useful to integrate an evaluation plan into the first concept plan (see also Section 4, Production process).

A point of departure for evaluation is information and feedback on the existing website. First, it is indispensable to follow usage and get feedback from website users. Users can give their essential point of view in website development, but they cannot necessarily take into account quality elements important to a health-related website. Both aspects should be integrated into the website development. Analysis and lessons learned based on both the user feedback and evaluation are important to take into account in praxis on the website.

USAGE MONITORING

For awareness of the website usage, it is recommended that the number of visitors is monitored monthly. In order to plan website usage and maximise the audience reach it would be preferable to have broadly defined aims as regards the number of website visitors.

Awareness of the website usage as well as a defined strategy and methods for user recruitment opens up the possibility of maximising the number of users. It serves promotion by providing appropriate data for it. (See also Section 4, Production process / Launch and Promotion).

The popularity of certain website features is an important indicator of what is seen as useful by the users.

The following actions can be taken to guarantee monitoring of the usage:

- Performance reporting: how and how often is the number of website visitors monitored
- Time spent on the website
- Defined aims concerning the number of website visitors
- Analysis of the most popular features, services and parts of the website: what are the most popular features, web-pages or services and why
- Analysis of what new features and services users are looking for
- Analysis of the current navigation structure: does it still make sense, or is it no longer adequate?

DATA COLLECTION AND USER ANALYSIS

Feedback from website users is one of the first steps in evaluating the website functions from the user's point of view. Feedback from users can be spontaneous, or it can be collected in a structured questionnaire. There should be an easy way for users to give feedback concerning the contents and services of the website. Structured data collection, for its part, helps identify website users' needs and wishes in a systematic way.

Surveys for website users should preferably be quite short, fewer than 10 questions. A mixture of specific and open-ended questions can be useful.



COLLECTED USER FEEDBACK - QUESTIONNAIRE OR PERSONAL INTERVIEWS ¹³

Data collection from website users can include the following questions:

- Who the users are (e.g. age, sex, occupation, residence)
- What information / services users need
- What information / services users expect to find
- What information / services users find most useful and why
- What information / services users find less useful and why
- Why users visit the website
- What do they want to do when reaching the site
- How do users locate the site
- How often do users visit the website
- How would users grade the functions
- How the website has helped in the quitting process
- Would the user recommend the website to a friend
- Difficulties encountered using the website

NEEDS ASSESSMENT

May also help to define what information is essential for smoker, by answering to the following questions:

- What smokers need
- What smokers want
- What smokers get
- How to increase support

SELF-EVALUATION

Options for self-evaluation:

1. You yourself can define what criteria are important when evaluating the website and its results
2. SWOT-analysis: Strengths, weaknesses, opportunities, threats of the website
3. A structured self-evaluation tool on the ENQ website. You can use the self-evaluation tool when evaluating different quality elements mentioned in the previous sections:
 - Transparency
 - Usability and functionality
 - Users' rights
 - Aims and targeting
 - Information contents
 - Interactive services

The present guidelines for smoking cessation websites have been planned together with a compatible self-evaluation tool. The aim of the self-evaluation tool is to improve the quality of smoking cessation websites. It supports practical planning and needs assessment of the cessation websites.

EXTERNAL EVALUATION

You can also commission an external evaluation of your website ¹³. Make sure the evaluator is familiar with health-related websites.

**Have a good evaluation of your website!
Hopefully you will find the guidelines useful.**

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NATIONAL WEBSITES

Austria

www.feelok.at

Belgium

www.cancer.be

www.fares.be

Czech Republic

www.dokurte.cz

www.prestantekourit.cz

Denmark

www.drstop.dk (adults)

www.xhale.dk (adolescents)

Finland

www.tupakka.org

www.stumppi.fi

www.happi.ws (adolescents)

France

www.tabac-info.net

www.tabac-info-service.fr

www.doctissimo.fr/html/dossiers/tabac_stop.htm

Germany

www.rauchfrei-info.de (adults)

www.rauch-frei.info (adolescents)

www.ein-plan.de/rauchfrei

www.aok.de/ich-werde-nichtraucher/htm/sitemap.php

Hungary

www.kozegeszsegtan.sote.hu/qandw/index.htm

www.oefi.hu/color/adat.htm

Iceland

www.8006030.is

Ireland

www.irishcancer.ie/quitting/cycle.of.change.php

www.ash.ie

Malta

www.gov.mt/health

Netherlands

www.smokealert.nl

www.stivoro.nl

www.stopeffectief.nl

Norway

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www.tobakk.no

www.kimo.no

www.nasjonalforeningen.no

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www.happyending.no

Poland

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Portugal

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Sweden

www.cancerfonden.se

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Switzerland

www.letitbe.ch

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UK

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www.muslimhealthnetwork.org

OTHER WEBSITES

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