

# Promoting hospital-based smoking cessation services at major Swiss hospitals: a before and after study

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## Summary

**Questions under study:** Whether a 1-year nationwide, government supported programme is effective in significantly increasing the number of smoking cessation clinics at major Swiss hospitals as well as providing basic training for the staff running them.

**Methods:** We conducted a baseline evaluation of hospital services for smoking cessation, hypertension, and obesity by web search and telephone contact followed by personal visits between October 2005 and January 2006 of 44 major public hospitals in the 26 cantons of Switzerland; we compared the number of active smoking cessation services and trained personnel between baseline to 1 year after starting the programme including a training workshop for doctors and nurses from all hospitals as well as two further follow-up visits.

**Results:** At base line 9 (21%) hospitals had active smoking cessation services, whereas 43 (98%) and 42 (96%) offered medical services for hyper-

tension and obesity respectively. Hospital directors and heads of Internal Medicine of 43 hospitals were interested in offering some form of help to smokers provided they received outside support, primarily funding to get started or to continue. At two identical workshops, 100 health professionals (27 in Lausanne, 73 in Zurich) were trained for one day. After the programme, 22 (50%) hospitals had an active smoking cessation service staffed with at least 1 trained doctor and 1 nurse.

**Conclusion:** A one-year, government-supported national intervention resulted in a substantial increase in the number of hospitals allocating trained staff and offering smoking cessation services to smokers. Compared to the offer for hypertension and obesity this offer is still insufficient.

**Key words:** smoking cessation; hospital-based programs

## Introduction

In Western countries the importance of diseases due to life-style is rapidly increasing and smoking is considered the most important preventable cause of death and disease [1]. In Switzerland medical services for some well-known risk factors such as hypertension and obesity are well established both in community practices and in public hospitals. However, hospital based smoking cessation services are lagging behind. The social and political context is currently rapidly changing with new legislation on tobacco products and protection from passive smoking. Several European countries like Ireland [2, 3] and

Italy [4] have successfully adopted laws restricting smoking in public places. Swiss legislation is lagging behind these countries as both advertising for tobacco products and smoking in public places such as restaurants is still legal in almost all cantons. However, the social and political climate is now changing, highlighted by the recent successful introduction of encouraging measures to protect the public from exposure to environmental tobacco smoke. For example, all Swiss trains became smoke-free in December 2005 [5], and in early 2006 the population of the canton of Ticino accepted by a land-slide majority of 79% a law to

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ban smoking in public places with effect from 2007 [6]. In this context hospital administrators feel pressurised to declare their institutions smoke-free in the near future, but so far most hospitals have only limited smoking to certain well defined areas, and most of them still sell cigarettes. Hospitals also feel the ethical need to offer smoking cessation counselling during their stay to alleviate smokers' withdrawal and to help implementation of smoking restrictions.

Further, hospital based smoking cessation programmes are effective in decreasing smoking

prevalence [7–9] and, most recently, have been shown to reduce mortality in high-risk smokers with cardiovascular disease [9]. The objectives of the study were 1) to assess the number of existing hospital-based smoking cessation services and compare it to the offer for hypertension and obesity, 2) to motivate for implementation of smoking cessation services, 3) to provide basic training for smoking cessation counsellors, and 4) to compare number of active sites and personnel trained by the programme in all major Swiss hospitals after one year.

## Methods

The project entitled Hospital Quit Support (HQS) was planned by a working group comprising experts from academic, governmental and non-governmental institutions involved in tobacco control in Switzerland in 2004. The project was planned under the auspices of the Swiss Association for Smoking Prevention (Arbeitsgemeinschaft fuer Tabakpraevention = AT) as an extension of the existing official activities in tobacco control, and was approved by the tobacco prevention fund of the Swiss Federal Office of Public Health in July 2005.

### Target group

We targeted all major hospitals defined as teaching institutions offering three years of postgraduate training in Internal Medicine. This choice was based on the assumption that a majority of doctors interested in smoking cessation would be in these departments, and that a period of at least three years would favour training of physicians and involvement in a smoking cessation service. A total of 39 hospitals in 21 cantons were chosen on these criteria. As Switzerland is a federal nation, it was felt that every canton should be represented; therefore we also included the largest hospital in the 5 cantons without a hospital satisfying above criteria. Finally, we targeted a total of 44 hospitals for this intervention (fig. 1). The schedule of the entire project is summarised in the flow sheet of figure 2.

### Existing services

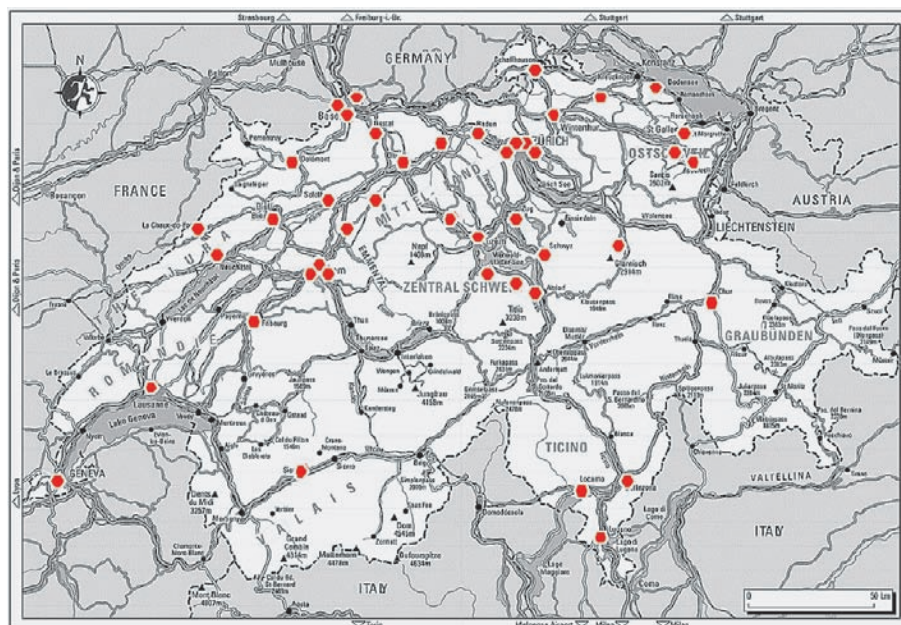
From August to September 2005 we assessed the existing services in these hospitals for three important risk factors – hypertension, obesity, and smoking – using a web search and a telephone call to the hospital switchboard. Each web site was searched to find whether counselling for smokers and/or smoking cessation was offered by the hospital. Many web sites had information on the health effects of smoking, but if counselling was not specifically mentioned this did not count. At the phone call the receptionist was asked the same question for each of the three risk factors evaluated, namely: is there an official offer at your hospital for people with high blood pressure, overweight/obese people, and smokers. The receptionist could either answer her- or himself or pass the caller on until someone could confidently answer the question. All web searches and phone calls were made by the project leader (CTB).

### Intervention

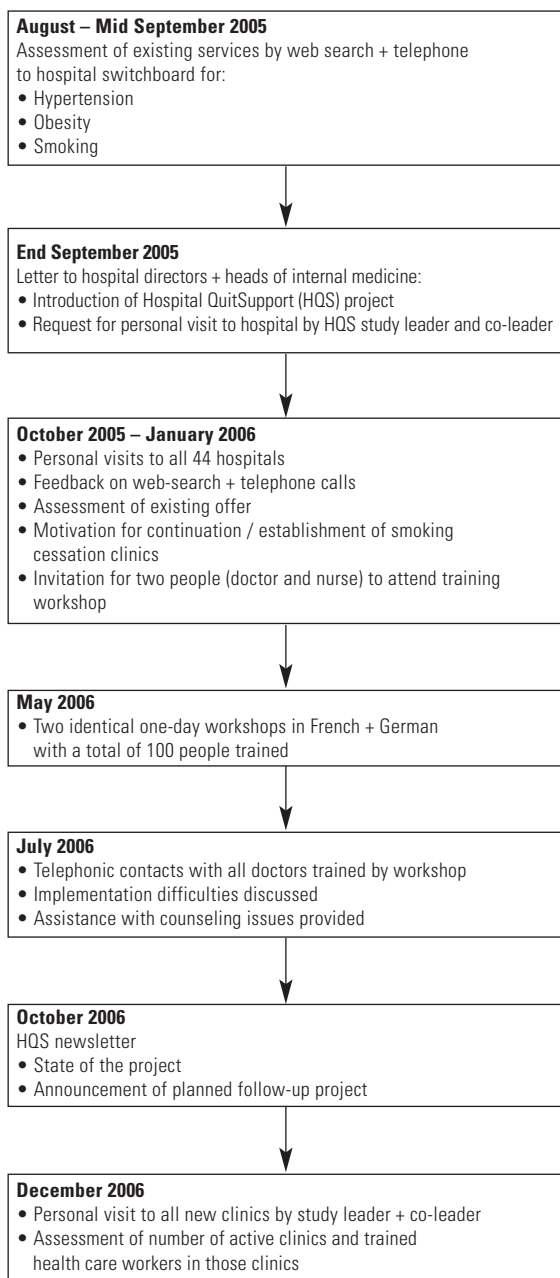
Subsequently, we sent an official letter to the director and the head of the department of Internal Medicine to request a personal visit by the study leader and co-leader. The visit aimed to provide feedback from the web and telephone survey and present the planned intervention to establish new or support existing smoking cessation services at their hospital. All 44 hospitals agreed and were vis-

**Figure 1**

Swiss map indicating the location of the 44 target hospitals.



**Figure 2**  
Study flow sheet.



ited between October 2005 and January 2006. At the visit we verified the existing services for the three health risk factors at their hospital and showed an identical presentation outlining the plan to implement smoking cessation services in all selected hospitals. For those without an existing smoking cessation service the study leaders argued about the importance for public health to address each of the three risk factors; they stressed that smoking is the most important preventable risk factor of disease and that it would make sense to provide smoking cessation counselling in a hospital already treating hypertensive and obese patients. With the increasing pressure to implement a smoke-free hospital, the importance was pointed out to not only forbid smoking but also to help smokers cope with withdrawal symptoms. Finally, we emphasised that a usually short hospital stay would only allow initia-

tion of smoking cessation counselling for smokers, which should be handed over to the referring doctor on patient's discharge. Smokers would then usually be managed by their doctor as smoking cessation requires several months of treatment similar to other addictions. Smokers could also continue their outpatient treatment at the hospital if their doctor was neither trained nor interested in providing smoking cessation intervention.

Finally, hospital management was asked to delegate one doctor and one nurse to attend a sponsored full day national workshop in May 2006. Permission was obtained to recall in February 2006 and ask for the names of the two persons selected for participation.

In May 2006, we held two identical workshops in French in Lausanne and in German in Zurich to teach the basics of smoking cessation supported by extensive handouts for self-directed learning. Participants from the Italian-speaking part of Switzerland attended the workshop of their choice. The content of the workshops covered the following topics: History of the tobacco epidemic, legislation on tobacco products – globally and country specific for Switzerland –, smoking prevalence, health effects of active and passive smoking, nicotine dependence, psychology of the smoker, pharmaceutical aids for smoking cessation, the respective roles of doctor and nurse in smoking cessation, and active role play by attendees in groups.

A standardised form with the essential variables to be collected from each smoker was handed out and the attendees were encouraged to use it in order to make their data usable for central analysis at a later stage. It was suggested that hospitalised smokers be identified and counseled individually, and that post-discharge counselling be continued for at least 1 month, preferably 3–6 months. This strategy used the recommendations of a recent meta-analysis by N. Rigotti [10]. All participants were informed that their hospital administrators had officially agreed to their participation and that they had a mandate to initiate a smoking cessation service or to continue it if it already existed.

In July 2006 telephone contact was made with all doctors who attended the workshop to ask them if they had an active or planned smoking cessation service. They were also told that the final assessment of the intervention would take place at the end of the year. In October a news bulletin was sent to all participants, summarising the previous activities with their results and announcing the planned continuation of the HQS project beyond the first year. In December 2006 the study leaders visited all new clinics to assess smoking cessation activity defined as: official recognition by the hospital administration and active offer of services run by two trained health professionals.

Both study leaders traveled throughout Switzerland from August 2005 until July 2006 to explain the aim of HQS in 15 meetings with primary care physicians countrywide. They tried to alleviate potential fears that the HQS project might draw smoking cessation interventions away from practitioners; they emphasised that hospital-based and outpatient management of smoking cessation were complementary.

## Results

At baseline, there were only 9 (21%) active smoking cessation services in the 44 hospitals, compared to 43 (98%) and 42 (96%) established

programmes for managing hypertension and obesity, respectively (table 1). Telephone receptionists provided the same information as the site visit in

**Table 1**

Offer of medical services for smoking cessation, hypertension, and obesity in 44 Swiss hospitals at baseline.

	Web search	Telephone	Site visit
Smoking	6/44 (14%)	10/44 (23%)	9/44 (21%)
Hypertension	19/44 (43%)	43/44 (98%)	43/44 (98%)
Obesity	29/44 (66%)	42/44 (96%)	42/44 (96%)

all except 1 hospital, where the smoking cessation service was in the planning stage only. The web search yielded lower figures with only 6 (14%), 19 (43%), and 29 (66%) of hospital websites showing information on services for smoking cessation, hypertension, and obesity respectively. Each director was given a hospital specific feedback about the quality of their web site. For the 6 sites mentioning smoking cessation the information was difficult to find, but even for hypertension and obesity the majority of sites were of poor quality. Suggestions for improvement were made to all directors.

During discussions with the hospital management, 43 hospitals showed their interest in offering some form of counselling for smokers, but most of them, including those already active, saw cost as the main limiting factor for a sustained programme. The managers mentioned two major reasons for the absence of a smoking cessation service: 1) Lack of funding associated with a request for some government subsidy to get started or to continue their activity particularly for a nurse's salary. In general, hospitals were more able to bill for doctors' services but not the nurses' time spent on counselling smokers. 2) Fear to compete with community doctors in smoking cessation, which they considered primarily an outpatient activity.

100 health professionals (40 doctors, 60 nurses) attended one of the 2 national workshops of identical content but in different languages (27 in Lausanne in French, 73 in Zurich in German). Only personnel of the 9 clinics active before the HQS project had practical counselling experience exceeding one year, whereas the attendees of the 13 new clinics had no experience. The trained counsellors were the same ones providing smoking cessation in the different units.

Compared to the baseline survey, the final assessment by a site visit in December 2006, showed that the number of active smoking cessation services at the 44 target hospitals had significantly increased from 9 (21%) to 22 (50%). Only clinics staffed with at least 1 trained doctor and 1 trained nurse were counted. All staff had been trained at one of the HQS workshops. The degree of employment in smoking cessation varied a lot. Only the 5 university hospitals had counsellors whose smoking cessation activities exceeded 50% of their employment. All 13 new clinics had designated a consultant in Internal Medicine as well as a nurse who started counselling smokers at about 10–20% of their time.

There was no funding for the sites during the initial one-year project. At the workshops all sites were informed, however, that a follow-up project was being planned and that a one-off financial incentive of SFr 20,000.– would be requested on behalf of all active clinics at the end of the initial project; ie, in December 2006. This sum was calculated to fund a nurse at 20% of employment for one year.

## Discussion

Our study showed that a government-supported one-year intervention was associated with a highly significant increase in the number of major Swiss hospitals offering smoking cessation counselling to hospitalised smokers. The increase from 21% to 50% of the target hospitals is remarkable considering the fact that at the outset almost all hospital administrations were doubtful about the feasibility of institutionalised hospital-based smoking cessation services mainly for reasons of lack of funding for the required personnel and fear of competition with the community doctors. This increase in smoking cessation services is, however, still insufficient in comparison to the well established offer for management of hypertension and obesity, which exists in almost all hospitals.

The baseline survey showed that hospital based smoking cessation services were clearly lagging behind in comparison to the results of an earlier survey published in 2002 looking at the same offer at 102 US hospitals, of which 30% and 47%

indicated the existence of smoking cessation clinics on their web sites and by telephone contact respectively [11].

The Swiss situation is not unique in Europe, where generally the availability of hospital based smoking cessation is clearly lower than in the USA [10, 12].

We think that the success of our programme was due to three concurrent factors. First, the intervention was resource intensive, the study leader (CTB) and co-leader (XvB) devoting 75% and 50% respectively of their time for an entire year. Second, the project was incorporated into the activities of the national coordination office (AT) and funded by the tobacco prevention fund of the Swiss Office for Public Health providing the necessary political and financial support. The third factor was fortuitous and unknown at the time of the study planning, namely the rapidly changing social and political climate concerning tobacco control in Switzerland, exemplified by the implementation of smoke-free trains and adoption of a

law banning smoking in public places in Ticino. These events precipitated a wave of public debate on the topic and we believe that it had a major impact on hospital administrators' opinions as well.

A limitation of our study is the absence of data about the quality and effectiveness of smoking cessation counselling for hospitalised smokers. In 2007 all the 13 new cessation clinics were at the beginning of a learning curve and needed continued academic and financial support. We therefore planned a two-year follow-up to the HQS project which was accepted in October 2007 (for details see: [www.bag.admin.ch/tabak\\_praevention:projects](http://www.bag.admin.ch/tabak_praevention:projects)). The objectives of this follow-up project in brief were to further increase the number of active sites, to evaluate the quality of the service provided and to guarantee sustainability of the smoking cessation clinics. To achieve this, the following six aims were defined:

- 1) addition of at least 8 new hospital-based smoking cessation clinics, bringing the total to at least 30 active sites out of the 44 target hospitals.
- 2) the six largest sites with the longest experience should act as centres of competence for the smaller hospitals in their vicinity, these centres should ensure that "best practice" guidelines in smoking cessation are implemented at each site.
- 3) counsellors trained in 2006 as well as new ones should receive further training in national workshops and through short training periods at their centres of competence.
- 4) each hospital-based smoking cessation clinic should identify counsellors in private practice who will continue patient support after discharge from hospital.
- 5) all active hospital-based clinics as well as the referral system in private practice should be posted on the web site of AT ([www.at-schweiz.ch](http://www.at-schweiz.ch)) and thus be available to the public, and

- 6) all active hospitals should implement measures of sustainability of their smoking cessation offer for the period after the HQS project. All clinics active at the end of December 2006 and committed to continue throughout the follow-up period should receive SFr. 20,000.– as incentive. Further financing should come out of hospitals budgets.

All clinics will document the number of patients counselled, smoking cessation treatment chosen, and the treatment success rates on a standardised HQS data capture sheet, which will have to be submitted to HQS for quality control purposes.

The ultimate aim of HQS is to have smoking cessation clinics at all target hospitals, as is the case for services to patients with hypertension and obesity.

In conclusion, our study showed that a government-supported intervention significantly increased the number of major Swiss hospitals offering smoking cessation counselling to hospitalised smokers in a period of a rapidly changing social and political climate concerning tobacco control. As various other European countries currently experience similar changes, such a programme to increase hospital based help for smokers might be successfully repeated elsewhere.

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