

## Tilburg University

### Implementation of an outdoor smoke-free policy at sports clubs: Critical situations and determinants influencing implementation

Garritsen, Heike H; Rozema, Andrea D; Am Van De Goor, Ien; Kunst, Anton E

*Published in:*

International Journal of Drug Policy

*DOI:*

[10.1016/j.drugpo.2021.103129](https://doi.org/10.1016/j.drugpo.2021.103129)

*Publication date:*

2021

*Document Version*

Publisher's PDF, also known as Version of record

[Link to publication in Tilburg University Research Portal](#)

*Citation for published version (APA):*

Garritsen, H. H., Rozema, A. D., Am Van De Goor, I., & Kunst, A. E. (2021). Implementation of an outdoor smoke-free policy at sports clubs: Critical situations and determinants influencing implementation. *International Journal of Drug Policy*, 92, [103129]. <https://doi.org/10.1016/j.drugpo.2021.103129>

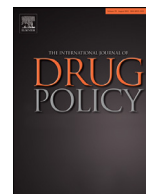
#### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

#### Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.



## Research paper

# Implementation of an outdoor smoke-free policy at sports clubs: Critical situations and determinants influencing implementation



Heike H Garritsen<sup>a,\*</sup>, Andrea D Rozema<sup>b</sup>, Ien AM van de Goor<sup>b</sup>, Anton E Kunst<sup>a</sup>

<sup>a</sup> Department of Public and Occupational Health, Amsterdam Public Health research institute, Amsterdam UMC, University of Amsterdam, Amsterdam, the Netherlands

<sup>b</sup> Tranzo Scientific Center for Care and Wellbeing, Tilburg School of Social and Behavioral Sciences, Tilburg University, Tilburg, the Netherlands

## ARTICLE INFO

## Keywords:

Tobacco  
Smoke-free policy  
Sports

## ABSTRACT

**Background:** Outdoor smoke-free policies (SFPs) at sports clubs have significant potential to reduce adolescent smoking. However, the realization of this potential may be strongly dependent on how these policies are implemented in practice. The aim of this study is to explore the perceptions of key stakeholders at different sports clubs in the Netherlands concerning how outdoor SFPs are implemented in practice and which determinants influence implementation.

**Methods:** Semi-structured interviews were held with 46 key stakeholders at eight Dutch sports clubs (i.e., field hockey, soccer, tennis, korfbal) with an outdoor SFP. A thematic approach was used for the analysis of the transcripts.

**Results:** Overall, respondents perceived the implementation of an outdoor SFP at sports clubs as feasible. The SFP is often enforced, people who smoke react positively when they are approached, the SFP has led to less (visible) smoking at the venue, and a nonsmoking norm is reinforced. However, we identified three 'critical situations' in which implementation is less than optimal: 1) when children are not present at the sports club, 2) when alcohol is involved, and 3) when people who smoke relocate to the entrance of the sports club. Several determinants influenced implementation in those critical situations: 1) determinants related to individual smokers and club members (i.e., support, communication towards people who smoke), 2) determinants related to the SFP itself (i.e., clarity of the policy), 3) determinants related to the sports club (i.e., communication of the policy, characteristics of the sports club), and 4) determinants related to the wider community (i.e., change of social norm with regard to smoking, support from local and national organizations).

**Conclusion:** Implementation of an outdoor SFP at sports clubs is feasible because there is a high level of support and experiences are mainly positive. Nevertheless, some situations present challenges to compliance and enforcement. We identified a number of determinants that may facilitate implementation of an outdoor SFP at sports clubs.

## Background

Smoking is the single most preventable cause of death and disease (World Health Organization, 2020). Early experimentation with cigarettes can have serious health consequences, as research shows that smoking a single cigarette in childhood is highly predictive of regular smoking later in life (Hilland et al., 2015; Nuyts, Kuipers, Willemsen & Kunst, 2018). Europe has a high prevalence of tobacco use by adolescents. For example, an average of 46% of European students aged 15–16 have smoked at least once in their lifetime, and 21% have smoked in the past 30 days (ESPAD group, 2016). Because of this, early smoking prevention strategies are an important public health priority.

One way to establish healthy environments with regard to smoking is through the implementation of smoke-free policies (SFPs). SFPs reduce the visibility of smoking, limit the opportunities for adolescents to smoke, and communicate that smoking is socially unacceptable (Alesci, Forster & Blaine, 2003; Eisenberg & Forster, 2003; Wakefield & Forster, 2005).

Besides SFPs that prohibit smoking in indoor public places (e.g. bars, restaurants), outdoor SFPs are being increasingly implemented (World Health Organization, 2018). Outdoor SFPs prohibit smoking e.g. in parks, playgrounds, and at outdoor sports clubs. The latter have significant potential to reduce adolescent smoking because sports clubs are popular leisure-time settings for many adolescents. For example,

\* Corresponding author.

E-mail address: [h.h.garritsen@amsterdamumc.nl](mailto:h.h.garritsen@amsterdamumc.nl) (H.H. Garritsen).

60% of 12–19-year-old Dutch adolescents participate in organized sports (Van der Poel, Hoeijmakers, Pulles & Tiessen-Raaphorst, 2018). In recent years, outdoor SFPs at sports clubs have been expanding across Europe as well as internationally, especially in Australia. Nowadays, in the Netherlands, approximately 25% of all (outdoor) sports clubs have voluntarily implemented an outdoor SFP at their venues. Those SFPs vary from strict (prohibiting outdoor smoking throughout the entire venue, without exemptions) to more lenient (with exemptions, e.g. smoking is allowed on Sunday or in the evening).

It is important to understand whether, how, and under which circumstances an outdoor SFP at sports clubs is successful at preventing adolescents from smoking. While SFPs could have important protective effects in theory, the actual occurrence of such effects may be strongly dependent on how these policies are implemented in practice. Effects may be reduced, nullified, or even reversed if a policy is inconsistent, poorly communicated, or not enforced (Durlak & DuPre, 2008; Jancey et al., 2014; Rozema, Hiemstra, Mathijssen, Jansen & Van Oers, 2018).

A few studies have explored the implementation of an outdoor SFP in the sports setting. However, these studies focused on general support for (Thomson, Wilson & Edwards, 2009) or compliance with (Pikora et al., 1999) an outdoor SFP, or focused on overall implementation of health-related policies in a sports setting and not on SFPs specifically (Dobbinson, Hayman & Livingston, 2006).

The aim of this study is to explore the perceptions of key stakeholders at different sports clubs in the Netherlands concerning how outdoor SFPs are implemented in practice and which determinants influence implementation.

## Methods

### Participants

Eight Dutch sports clubs with a strict (i.e., without exemptions) outdoor SFP were included in the study. To represent the variety of outdoor sports clubs in the Netherlands, we included four major sports: soccer, tennis, field hockey, and korfbal. Those four sports differ in several characteristics. Field hockey is popular among families with high socio-economic status (SES), while soccer players tend to come from lower-SES families. Tennis is both a team sport and an individual sport. Korfbal teams consist of both boys and girls. In addition to variation in sports, we took into account variation between Dutch regions when selecting sports clubs. In total, 25 sports clubs were contacted face-to-face, by phone, e-mail, and/or letter and asked whether they would participate. Participating clubs ( $n = 8$ ) did not differ substantially from the non-participating clubs ( $n = 17$ ) in type of sports ( $p = 0.29$ ) or level of urbanization ( $p = 0.74$ ). The main reasons for non-participation were lack of interest ( $n = 6$ ), not having enough respondents ( $n = 4$ ), and being too busy with other things ( $n = 3$ ). Table 1 presents the characteristics of the participating sports clubs.

At each sports club, semi-structured interviews were held with key stakeholders (i.e., committee members, board members, trainers/coaches, parents, referees, and other stakeholders). Variation according to gender, function within the sports club, and smoking status were taken into account during recruitment of the stakeholders. A total of 46 respondents participated in the study. Their mean age was 48.13 years ( $SD=16.01$ ) (range 20–77). Table 2 presents the characteristics of the respondents.

### Procedure

The study was conducted (2019–2020) in collaboration with Sportief Advies (SA), a Dutch organization that supports projects related to sports and culture. Three employees of SA were responsible for recruiting the sports clubs and conducting the interviews. They were all familiar with the research topic, since they had experience with advising sports clubs in the Netherlands who want to become smoke-free. Because they had

**Table 1**  
Characteristics of the participating sports clubs.

	No. of sports clubs	
	$n = 8$	No. of respondents
<b>Sports</b>		
Soccer	2	12
Korfbal	2	12
Field hockey	2	11
Tennis	2	11
<b>Size</b>		
<250 members	1	6
250–500 members	3	17
500–1000 members	3	17
1000–1500 members	1	6
<b>Urbanity</b>		
Highly urbanized region	2	11
Urbanized region	3	18
Moderately urbanized region	1	5
Rural region	2	12
Highly rural region	0	0
<b>Year of implementation of outdoor SFP</b>		
2017	3	18
2018	4	23
2019	1	5

**Table 2**  
Characteristics of the respondents.

	No. of respondents	
	$n = 46$	%
<b>Gender</b>		
Men	32	69.6
Women	14	30.4
<b>Function<sup>a</sup></b>		
Committee member <sup>b</sup>	20	43.5
Board member	14	30.4
Trainer/coach	11	23.9
Parent	4	8.7
Arbitrator	3	6.5
Other <sup>c</sup>	2	4.3
<b>Smoking status<sup>d</sup></b>		
Smoker	4	8.7
Non-smoker	42	91.3

<sup>a</sup> Total numbers in row do not add up to 46 as some respondents had multiple functions within the sports club.

<sup>b</sup> Includes members from different committees, such as the bar committee, technical committee, youth committee, tournament committee and party committee.

<sup>c</sup> Website builder and team captain.

<sup>d</sup> Smoker refers to daily smokers; non-smoker refers to non-daily smokers and non-smokers.

little interviewing experience, they were instructed by the first and last authors (HHG, AEK) in conducting the interviews. Furthermore, the first author provided feedback on their first interviews.

Semi-structured interviews were conducted with key stakeholders to explore their perceptions with respect to the implementation of an outdoor SFP. The development of the interview guide was inspired by two widely used implementation frameworks (Damschroder et al., 2009; Fleuren, Wiefferink & Paulussen, 2004). Both frameworks provide an overview of various determinants that have been found to influence implementation in general. We used the frameworks to identify a number of determinants which we expected to be relevant for implementing an outdoor SFP at sports clubs, e.g. ‘relative priority’ and ‘available resources’. Questions on these determinants were included in the interview guide, which can be found in Appendix A. Gender, age, function within the sports club, and smoking status of the respondents were noted. Furthermore, sports club size, urbanization level, and year of implementation of the outdoor SFP were noted. All respondents signed an informed consent form and data were recorded on a digital audio

recorder. Interviews lasted on average 24 min (range 13–37). The Medical Ethics Review Committee of the Academic Medical Center confirmed that the Dutch Medical Research Involving Human Subjects Act (WMO) did not apply to this study and that an official approval was not required (W20\_318 # 20.369).

### Analysis

Interviews were transcribed verbatim and analyzed using MAXQDA (VERBI Software, 2020). Thematic analysis, a qualitative analytic method for identifying, analyzing, and reporting patterns (themes) within data, was used (Braun & Clarke, 2006). Within this thematic analysis, an inductive (or ‘bottom up’) method was chosen. Coding was conducted by the first author (HHG) and another researcher coded 15 transcripts in parallel. Inconsistencies regarding codes were discussed until consensus was reached. Thereafter, similar codes were pooled and overarching themes were created. These themes were then classified into ‘critical situations’ (i.e., situations in which implementation was perceived by stakeholders as less than optimal) and ‘determinants influencing implementation’. The appropriateness and classification of the themes were iteratively discussed with all authors and amended when judged necessary. As a final step, the ‘determinants influencing implementation’ were broken down into four categories. The arrangement of these categories followed the framework of Fleuren et al. (2004).

### Results

Overall, respondents perceived the implementation of an outdoor SFP at sports clubs as feasible. First, according to them, the SFP has led to less (visible) smoking at the venue. Some respondents mentioned that they cannot even remember the last time they saw someone smoking at their club. Second, the SFP is often actively enforced, and most of the time smokers react positively when they are approached. Finally, respondents thought that a nonsmoking norm was reinforced, i.e., smoking at the sports club was no longer seen as ‘normal’.

*“Interviewer: Do people still smoke at the sports club? Respondent: Very occasionally. I can’t even remember the last time in weeks.”* (Respondent 50, field hockey).

Nevertheless, respondents also perceived a number of situations in which implementation is less than optimal, i.e., ‘critical situations’. In addition, they reported a number of determinants that can influence implementation in such situations.

#### Critical situations

Respondents perceived three critical situations with regard to the implementation of an outdoor SFP: 1) when children are not present at the sports club, 2) when alcohol is involved, and 3) when people who smoke relocate to the entrance of the sports club.

#### When children are not present at the sports club

When (almost) no children are present at the sports clubs, i.e., in the evening, on Sundays, or during parties or events at the sports club, support for and compliance with the SFP decreases. According to respondents, the reason for this is that the argument for nonsmoking, i.e., setting a good example for children, no longer applies. Given that argument, people find it hard to understand why they are not allowed to smoke and consider it exaggerated to not be allowed to smoke when children are no longer around.

*“But when it’s the end of the day and all children are gone, why can’t I just have a smoke outside? I think that’s their main issue.”* (Respondent 42, korfbal).

In addition, respondents perceived that the SFP is less enforced when children are not present at the sports club. Some respondents men-

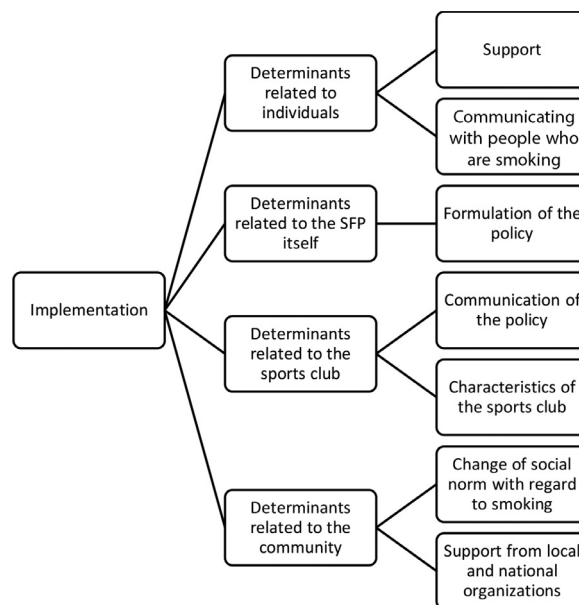


Fig. 1. Determinants that influence implementation.

tioned that the presence/absence of children determines whether they approach people who smoke or not.

#### When alcohol is involved

When alcohol is involved, smokers tend to comply less with the SFP. Respondents described how people smoke when they are having a good time together while drinking a beer, especially in the evening and during parties or events at the sports club. In addition, enforcement of the SFP is perceived as more challenging under those circumstances. People feel uncomfortable approaching smokers who have consumed (a lot of) alcohol, as they expect to be faced with resistance or even aggression.

*“It’s hard when you see a group of drunk supporters smoking. You don’t want to end up in all kinds of aggressive discussions.”* (Respondent 6, soccer).

#### When smokers relocate to the entrance of the sports club

As a result of the outdoor SFP, large groups of people frequently gather at the entrance of the sports club to smoke. Consequently, smoking is still visible, and perhaps even more than before the implementation of the SFP. According to respondents, children are literally walking through a ‘hedge of smoke’. This is perceived as an undesirable side effect of the SFP, since the main goal of the SFP is to decrease smoking visibility and exposure.

*“Literally, everyone stands in front of the fence. That’s where all children walk in and out. On a busy afternoon, many people smoke there. So, to say that children stay completely out of range... no, actually not.”* (Respondent 5, soccer).

Respondents mentioned that they find it hard to approach people who smoke at the entrance of the sports club since this is perceived as public space and not part of the sports club’s venue.

#### Determinants that influence implementation

Respondents reported several determinants that influence implementation, including its enforcement in the critical situations described above (see Fig. 1). We classified these under 1) determinants related to individuals (i.e., support, communicating with people who smoke), 2) determinants related to the SFP itself (i.e., formulation of the policy), 3) determinants related to the sports club (i.e., communication of

the policy, characteristics of the sports club), and 4) determinants related to the wider community (i.e., change of social norm with regard to smoking, support from local and national organizations).

#### *Determinants related to individuals*

**Support.** The extent to which people support the SFP in practice is important since little support may cause resistance and lead to weak enforcement in “difficult” situations. According to respondents, most people support the SFP, including smokers. Most of them support the implementation of a SFP in situations when children are present at the sports club, as most people agree that smoking around children is inappropriate and that children should be protected from the harmful effects of secondhand smoke (SHS). However, respondents said that not everyone supports the SFP unconditionally. Especially older people and people who have smoked for many years and do not intend to quit sometimes feel patronized by the policy. Respondents mentioned that as older people may have been members of the sports club for a long time, they may feel that they have certain ‘acquired rights’.

*“Older people had more difficulty with that [implementation of the outdoor SFP] than the younger generation. You have a kind of acquired right, like why do I suddenly have to leave the venue to smoke?”* (Respondent 26, tennis).

To increase support for the SFP, some sports clubs actively involved club members most affected by the SFP (e.g. smokers) in the implementation of these policies. This helped to ensure that everyone embraced the proposed changes, and avoided resistance against the SFP. Respondents mentioned that “once you have the hardest people on board, the rest will follow”.

**Communicating with people who are smoking.** According to respondents, the way in which club members deal with people who are smoking is important for successful enforcement of the SFP. One should approach people who smoke respectfully and use clear arguments to explain why smoking is not allowed. Respondents mentioned that framing the outdoor SFP as ‘smoke-free’ instead of ‘a smoking ban’ fosters a positive response. Similarly, a positive response is generally experienced when using the argument of association with children.

*“I’ve noticed that when I explain the policy in terms of children, everyone accepts it. Everyone knows someone with children, or is a grandfather or grandmother.”* (Respondent 5, soccer).

Respondents perceived that most of the time people find it feasible to approach people who smoke and ask them to stop. According to respondents, having a good atmosphere, where people know each other and there is mutual acceptance, contributes to a generally favorable response. However, in some specific situations, people do find it difficult to approach people who smoke. First, people sometimes perceive a higher risk of ending up in a discussion or conflict with smokers. According to them, at those times, “it is not worth the fight”. Second, some people find it hard to approach smokers who are older than themselves. They feel like they will not be taken seriously and expect older people to react negatively, saying they should mind their own business.

#### *Determinants related to the SFP itself*

**Formulation of the policy.** Effective implementation of an outdoor SFP may be frustrated if the policy is not clearly formulated. According to respondents, at some sports clubs, the precise rules with regard to smoking are unclear (i.e., when/where is smoking allowed). This may lead to confusion and can make it more challenging to deal with people who smoke. In addition, guidelines on how to approach people who smoke often do not exist. Finally, often, it is not specified who is responsible for enforcement (i.e., the board, a small group of volunteers, or all club

members), with the result that no one takes responsibility for the enforcement of the SFP.

*“There is no supervision. When someone smokes, nobody is saying: “Hey, you can’t smoke here”. We need to make an agreement about that. Like: this is how we’re going to do it.”* (Respondent 2, soccer)

#### *Determinants related to the sports club*

**Communication of the policy.** According to respondents, the majority of members are familiar with the smoking rules at their sports club. Sports clubs have used signs, posters, and/or banners to inform people about the SFP. They have also placed information about the SFP on their website, and some clubs have sent a newsletter to all members of the sports club. According to respondents, such communication is important not only to avoid confusion and misunderstanding, but also to facilitate enforcement since it is easier for members to approach people who smoke when they can point at a sign.

*“If people are increasingly confronted with the rules, it becomes much easier to approach smokers. After all, the only thing you’d have to say is: “Look at that sign”.”* (Respondent 12, korfbal).

Respondents perceived that visitors (e.g. supporters from other sports clubs) are often unfamiliar with the SFP rules, especially when their own sports club does not have an outdoor SFP. This results in supporters reacting somewhat confused when they are asked to not smoke in the open air. According to respondents, signs, posters, and banners are an important to deal with such situations as well.

**Characteristics of the sports club.** Certain characteristics of a sports club were perceived to facilitate implementation of an outdoor SFP. First, having a small venue makes it easy to detect people who smoke, as it is more difficult for people to smoke out of sight. Second, having only a few members who smoke may facilitate the implementation of the SFP as nonsmoking was already more or less the norm.

*“Hardly anyone smokes here, which probably makes it a lot easier for a sports club to implement a SFP. If half of your members smoke, it will be much more difficult.”* (Respondent 40, korfbal).

On the other hand, implementation is perceived as more difficult when sports clubs are situated at a sports park with several other sports clubs. It may be confusing to the clubs’ members and visitors when the other clubs do not have the same rules with regard to smoking.

#### *Determinants related to the community*

**Change of social norm with regard to smoking.** Respondents perceived that the national social norm with regard to smoking is changing: the overall number of people who smoke is perceived to be in decline, Dutch smoke-free legislation is applied in increasingly more settings, and smoking is not socially accepted in ever more situations. Together, these changes make it easier to implement an outdoor SFP at sports clubs, as smokers have become used to the fact that they are not allowed to smoke in most places. In addition, when club members experience that other sports clubs have an outdoor SFP, this helps to increase their acceptance of such policy at their own club.

*“We have the advantage that many of our members participate in two sports. That way, they are already used to SFPs at sports clubs.”* (Respondent 24, tennis).

**Support from local and national organizations.** Respondents emphasized the importance of support from both local and national organizations with regard to implementing an outdoor SFP. On the local level, municipalities could support sports clubs by informing them how to successfully implement and enforce the SFP. Furthermore, some respondents argued that municipalities could foster implementation by developing smoke-free regulations that apply to all sports clubs in the com-

munity. Similarly, on the national level, sports federations could also offer help by informing clubs or develop smoking smoke-free regulations that apply to all sports clubs. Respondents also argued that the government could make implementation much easier by prohibiting smoking at sports clubs by law.

*“Just make a law. ‘At these venues smoking is no longer allowed and that’s it’. That way, all discussions are gone. In my opinion, that is eventually most effective.”* (Respondent 12, korfbal).

## Discussion

### Key findings

The aim of the present study was to explore the perceptions of key stakeholders at different sports clubs in the Netherlands concerning how outdoor SFPs are implemented in practice and which determinants influence implementation. Stakeholders mentioned that the implementation of an outdoor SFP resulted in less smoking at the sports club and strengthening of a nonsmoking norm. The SFP is often actively enforced and, most of the time, people who smoke react positively when being approached. On the other hand, stakeholders perceived three critical situations in which implementation is challenging: 1) when children are not present at the sports club, 2) when alcohol is involved, and 3) when smokers relocate to the entrance of the sports club. Finally, seven determinants that influence implementation were reported by stakeholders: 1) determinants related to individuals (i.e., support, communication towards people who smoke), 2) determinants related to the SFP itself (i.e., formulation of the policy), 3) determinants related to the sports club (i.e., communication of the policy, characteristics of the sports club), and 4) determinants related to the wider community (i.e., change of social norm with regard to smoking, support from local and national organizations).

### Interpretation of findings

We found that compliance to the SFP was perceived as problematic when (almost) no children were present at the sports club. This is in line with previous studies that found a strong relationship between support for an outdoor SFP and the presence of children at the target areas (Thomson et al., 2009; Thomson, Wilson, Collins & Edwards, 2016). Thomson, Wilson, Weerasekera and Edwards (2011) found that setting an example for children is perceived as a strong reason for smokers to quit smoking, even more than concerns about their own health. We found that people may start smoking at sports clubs as soon as children are no longer present, arguing that the reason to avoid smoking has disappeared. However, although children are not around at the time people smoke, smoking can leave cues such as filled ashtrays that can be a trigger for children to think about smoking (Schuck, Otten, Engels & Kleinjan, 2012).

Implementation and enforcement of the SFP was perceived as more difficult when alcohol is involved, since people who smoke and drink at the same time may comply less with the SFP and may be harder to approach. Sports participation is related to high levels of alcohol consumption, particularly in team sports (Brenner & Swanik, 2007; Martens, Watson & Beck, 2006; Wichstrøm & Wichstrøm, 2009; Lorente, Souville, Griffet & Grélot, 2004; Peretti-Watel, Beck & Legleye, 2002). The latter is likely due to the fact that drinking at the sports club is very much centered on team socializing and bonding (Brenner & Swanik, 2007). Therefore, health promotion at sports clubs may need to address smoking and alcohol use simultaneously. For example, the main Dutch organization for organized sports (NOC\*NSF) has a national program aimed to create a ‘Healthy Sports Environment’ that addresses both smoking and problematic alcohol use (Ministerie van Volksgezondheid, Welzijn en Sport, 2020).

We found that the introduction of an outdoor SFP has led to a relocation of people who smoke to the entrance of the sports club. This finding has been reported in settings other than sports clubs as well (Nagle, Schofield & Redman, 1996; Rozema, Mathijssen, Van Oers & Jansen, 2018; Watts, Lovato, Card & Manske, 2010). People who smoke who congregate at the entrance expose non-smokers who enter and exit the sports club to SHS. There is no safe level of SHS (World Health Organization, 2000) and concentrations of tobacco smoke at entrances can reach hazardous levels (Sureda et al., 2012; Sureda, Fernández, López & Nebot, 2013). In addition, smoking at the entrance may contribute to negative role modeling and give a poor image to outsiders and visitors (Parry, Platt & Thomson, 2000). Therefore, in addition, it may very well encourage smoking among adolescents.

The three critical situations that we have identified show that smoking may still be tolerated despite the SFP. Studies in settings other than sports clubs have shown that such situations may arise particularly when SFPs have exemptions, as such policies may be interpreted as more lenient, prompting smokers to ignore the policy (Schreuders, Nuys, van den Putte & Kunst, 2017). Several studies have reported that SFPs are more effectively implemented when exemptions are not tolerated (Gonzalez & Glantz, 2013; Schreuders et al., 2017; Wakefield et al., 2000).

### Study limitations

Some limitations should be considered when interpreting the results. First, it is unclear whether the sports clubs included in this study are representative of all sports clubs in the Netherlands. Although we succeeded in including a diverse group with regard to types of sports, regions, and stakeholders, the small number of clubs included limits the generalizability of the results. Second, some social desirability bias might have occurred. Board members may have been tempted to create a favorable image of their sports club – especially since the interviewers worked for an organization (SA) with a sporty and healthy image. However, we found that all respondents, including board members, talked very openly about both positive and negative experiences. Finally, as ‘lack of interest’ was the primary reason for non-participation, sports clubs that refused to participate in the study might have been those with less positive experiences with an outdoor SFP. Consequently, it could be questioned whether we can fully generalize the findings from our sample to a larger group of sports clubs.

### Implications

Our findings have several implications. First, to be effective, SFPs at sports clubs need to be comprehensive, without exemptions. Smoking should not be tolerated when children are not present at the sports club. Second, possibilities should be investigated to extend the SFP to the entrance of the venue. For this, sports clubs may need to work together with municipalities or other parties with the authority to prohibit smoking. Third, sports clubs need to set up a thorough implementation strategy, including clear rules (specifying when and where smoking is not allowed, and who is responsible for enforcement), communication (including no-smoking signage), and advice for members on how to approach people who smoke, particularly in difficult situations. Finally, municipalities and sports federations should support clubs in the formulation and implementation of an outdoor SFP, and stimulate a more general policy of ‘healthy sports clubs’ in which both smoking and alcohol use are tackled.

## Conclusion

Key stakeholders at sports clubs perceive the implementation of an outdoor SFP at sports clubs as feasible. Support among members is high and experiences with implementation are mainly positive. Nevertheless, some challenges are faced as well, especially with regard to compliance

and enforcement. To further improve effective implementation, sports clubs should pay special attention to the critical situations identified in this study. The determinants that influence implementation may help sports clubs to foster effective implementation of an outdoor SFP at their club. Our findings may be particularly useful to sports clubs that have not yet implemented an outdoor SFP, but who may feel encouraged to become smoke-free as well.

### Declaration of Competing Interest

None.

### Funding

This study was funded by ZonMw [grant number 531003016].

### Acknowledgements

A version of this paper has been made available on the preprint service of Research Square.

### Appendix A

1. How would you describe the sports club?
2. How has the smoke-free policy been implemented at your sports club?
  - 2a. What was the reason to implement the policy?
  - 2b. Did the members of the sports club have a say in this?
  - 2c. How was the new policy communicated to the members?
3. What rules does this sports club have for smoking on the sports grounds?
  - 3a. Where do these rules apply?
  - 3b. When do these rules apply?
  - 3c. To whom do these rules apply?
  - 3d. What are the rules at parties, tournaments, or other events?
  - 3e. What are the rules for the e-cigarette?
4. To what extent are the rules clear to members of this sports club?
5. To what extent are the rules clear to visitors?
6. How can one know what the rules are?
7. To what extent do people comply with the smoke-free policy?
  - 7a. When do people smoke?
  - 7b. Where do people smoke?
  - 7c. Who is smoking?
8. What happens if someone smokes?
  - 8a. Can you describe this situation?
  - 8b. Who is responsible?
  - 8c. How does the smoker react on this?
  - 8d. What do you do when you see someone smoking?
9. What hinders enforcement of the smoke-free policy?
  - 9a. Are there other things that hinder enforcement?
  - 9b. Are there other things?
10. What facilitates enforcement of the smoke-free policy?
  - 10a. Are there other things that facilitate enforcement?
  - 10b. Are there other things?
11. Which parties outside the sports club have an influence on the smoking policy of a sports club?
  - 11a. Can you explain this?
  - 11b. Are there more parties that are important, besides party X?
  - 11c. Are there more parties that are important?

### References

Alesci, N. L., Forster, J. L., & Blaine, T. (2003). Smoking visibility, perceived acceptability, and frequency in various locations among youth and adults. *Preventive Medicine, 36*, 272–281.

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101.
- Brenner, J., & Swanik, K. (2007). High-risk drinking characteristics in collegiate athletes. *Journal of American College Health, 56*, 267–272.
- Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science, 4*, 1–15.
- Dobbinson, S. J., Hayman, J. A., & Livingston, P. M. (2006). Prevalence of health promotion policies in sports clubs in Victoria. *Health Promotion International, 21*(2), 121–129.
- Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology, 41*, 327.
- Eisenberg, M. E., & Forster, J. L. (2003). Adolescent smoking behavior: Measures of social norms. *American Journal of Preventive Medicine, 25*, 122–128.
- Fleuren, M., Wiefferink, K., & Paulussen, T. (2004). Determinants of innovation within health care organizations: Literature review and Delphi study. *International Journal for Quality in Health Care, 16*, 107–123.
- Gonzalez, M., & Glantz, S. A. (2013). Failure of policy regarding smoke-free bars in the Netherlands. *The European Journal of Public Health, 23*(1), 139–145.
- ESPAD Group. (2016). *Results from the european school survey project on alcohol and other drugs*. Luxembourg: Publications Office of the European Union.
- Hilland, T. A., Beynon, C. M., McGee, C. E., Murphy, R. C., Parnell, D., Romeo-Velilla, M., et al. (2015). Training sports coaches to tackle tobacco: Formative evaluation of the SmokeFree Sports campaign. *International Journal of Health Promotion and Education, 53*, 2–16.
- Jancey, J., Bowser, N., Burns, S., Crawford, G., Portsmouth, L., & Smith, J. (2014). No smoking here: Examining reasons for noncompliance with a smoke-free policy in a large university. *Nicotine & Tobacco Research, 16*, 976–983.
- Lorente, F. O., Souville, M., Griffet, J., & Grélot, L. (2004). Participation in sports and alcohol consumption among French adolescents. *Addictive Behaviors, 29*, 941–946.
- Martens, M. P., Watson, J. C., & Beck, N. C. (2006). Sport-type differences in alcohol use among intercollegiate athletes. *Journal of Applied Sport Psychology, 18*, 136–150.
- Nagle, A. L., Schofield, M. J., & Redman, S. (1996). Smoking on hospital grounds and the impact of outdoor smoke-free zones. *Tobacco Control, 5*, 199–204.
- Nuyts, P. A., Kuipers, M. A., Willemsen, M. C., & Kunst, A. E. (2018). Trends in age of smoking initiation in the Netherlands: A shift towards older ages? *Addiction (Abingdon, England), 113*, 524–532.
- Parry, O., Platt, S., & Thomson, C. (2000). Out of sight, out of mind: Workplace smoking bans and the relocation of smoking at work. *Health Promotion International, 15*, 125–133.
- Peretti-Watel, P., Beck, F., & Legleye, S. (2002). Beyond the U-curve: The relationship between sport and alcohol, cigarette and cannabis use in adolescents. *Addiction (Abingdon, England), 97*, 707–716.
- Pikora, T., Phang, J. W., Karro, J., Corti, B., Clarkson, J., Donovan, R. J., et al. (1999). Are smoke-free policies implemented and adhered to at sporting venues? *Australian and New Zealand Journal of Public Health, 23*, 407–409.
- Rozema, A. D., Hiemstra, M., Mathijssen, J. J., Jansen, M. W., & Van Oers, H. J. (2018). Impact of an outdoor smoking ban at secondary schools on cigarettes, e-cigarettes and water pipe use among adolescents: An 18-month follow-up. *International Journal of Environmental Research and Public Health, 15*, 205.
- Rozema, A. D., Mathijssen, J. J., Van Oers, H. A., & Jansen, M. W. (2018). Evaluation of the process of implementing an outdoor school ground smoking ban at secondary schools. *Journal of School Health, 88*, 859–867.
- Schreuders, M., Nuyts, P. A., van den Putte, B., & Kunst, A. E. (2017). Understanding the impact of school tobacco policies on adolescent smoking behaviour: A realist review. *Social Science & Medicine, 183*, 19–27.
- Schuck, K., Otten, R., Engels, R. C., & Kleinjan, M. (2012). The role of environmental smoking in smoking-related cognitions and susceptibility to smoking in never-smoking 9–12 year-old children. *Addictive Behaviors, 37*, 1400–1405.
- Sureda, X., Fernández, E., López, M. J., & Nebot, M. (2013). Secondhand tobacco smoke exposure in open and semi-open settings: A systematic review. *Environmental Health Perspectives, 121*, 766–773.
- Sureda, X., Martínez-Sánchez, J. M., López, M. J., Fu, M., Agüero, F., Saltó, E., et al. (2012). Secondhand smoke levels in public building main entrances: Outdoor and indoor PM 2.5 assessment. *Tobacco Control, 21*, 543–548.
- Thomson, G., Wilson, N., Collins, D., & Edwards, R. (2016). Attitudes to smoke-free outdoor regulations in the USA and Canada: A review of 89 surveys. *Tobacco Control, 25*, 506–516.
- Thomson, G., Wilson, N., & Edwards, R. (2009). At the frontier of tobacco control: A brief review of public attitudes toward smoke-free outdoor places. *Nicotine & Tobacco Research, 11*, 584–590.
- Thomson, G., Wilson, N., Weerasekera, D., & Edwards, R. (2011). Strong smoker interest in 'setting an example to children' by quitting: National survey data. *Australian and New Zealand Journal of Public Health, 35*, 81–84.
- Van der Poel, H., Hoelijmakers, R., Pulles, I., & Tiessen-Raaphorst, A. (2018). *Rapportage sport*. <https://www.scp.nl/publicaties/monitors/2018/12/12/rapportage-sport-2018>.
- VERBI Software. (2020). *MAXQDA analyticspro*. Berlin: VERBI.
- Wakefield, M., & Forster, J. (2005). Growing evidence for new benefit of clean indoor air laws: Reduced adolescent smoking. *Tobacco Control, 14*, 292–293.
- Wakefield, M. A., Chaloupka, F. J., Kaufman, N. J., Orleans, C. T., Barker, D. C., & Ruel, E. E. (2000). Effect of restrictions on smoking at home, at school, and in public places on teenage smoking: Cross sectional study. *BMJ (Clinical research ed.), 321*, 333–337.

- Watts, A. W., Lovato, C. Y., Card, A., & Manske, S. R. (2010). Do students' perceptions of school smoking policies influence where students smoke? Canada's Youth Smoking Survey. *Cancer Causes & Control*, 21, 2085–2092.
- Wichstrøm, T., & Wichstrøm, L. (2009). Does sports participation during adolescence prevent later alcohol, tobacco and cannabis use? *Addiction (Abingdon, England)*, 104, 138–149.
- World Health Organization. (2000). *Air quality guidelines for Europe*. <https://www.euro.who.int/en/publications/abstracts/air-quality-guidelines-for-europe>.
- World Health Organization. (2018). *Global progress report on implementation of the WHO Framework Convention on Tobacco Control*. [https://www.who.int/fctc/reporting/WHO-FCTC-2018\\_global\\_progress\\_report.pdf?ua=1](https://www.who.int/fctc/reporting/WHO-FCTC-2018_global_progress_report.pdf?ua=1).
- World Health Organization. (2020). *Tobacco. Data and statistics*. <https://www.euro.who.int/en/health-topics/disease-prevention/tobacco/data-and-statistics>.