

# Effects of an alcohol prevention program at sport arenas: A 2-year follow-up study using pseudopatrons and breath alcohol concentration levels

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## Aim

To measure the effects of an alcohol prevention program (Fig. 1) implemented at arenas hosting games in the Swedish Premier Football League (SPFL).

## Background

Alcohol intoxication and related problems among spectators are common at SPFL games. Alcohol beverages can be purchased at the sport arenas. However, obviously intoxicated individuals are not allowed to enter the arenas or purchase alcohol. In 2015, we initiated a novel research project with the aim to increase the level of compliance with the Alcohol Act, thereby reducing alcohol intoxication levels among spectators.

## Methods

A quasi-experimental study using a repeated cross-sectional design where Stockholm is the intervention area and Gothenburg the control. Data consists of security/serving staff's rates of denial toward obviously intoxicated spectators and breath alcohol concentration (BrAC) levels among spectators.

Professional actors (pseudopatrons) were trained to act a standardized scene of obvious intoxication at licensed premises outside and inside the arenas as well as at the entrances to the arenas. Measurements outside the arena were used as an internal control. BrAC-levels were collected among randomly selected spectators inside the arenas using breath analyzers.

## Results

Both the pseudopatron (Fig. 2) and BrAC study (Fig. 3) revealed significant changes in both study areas. However, the internal control only improved in the control area (Fig. 2).

## Conclusion

Interpretation of results is complex due to the positive changes observed in the control area. However, while the internal control remained constant in the intervention area, it changed significantly in the control area. It then appears as if the control area has not remained constant and indeed, during the study period a number of alcohol licenses were revoked from licensed premises outside the arenas in the control area. It is likely that this have had a spill-over effect on licensed premises inside the arenas. Results then indicate that the multi-component alcohol prevention program is effective.

Figure 1: Strategies of the multi-component prevention program.

Community mobilization & collaboration	Training	Enforcement & policy work
<ul style="list-style-type: none"> <li>Stakeholders: football clubs, arena corporations, licensed premises, police, licensing board</li> <li>Steering &amp; working groups</li> <li>Co-production of intervention</li> <li>Media advocacy</li> </ul>	<ul style="list-style-type: none"> <li>2-day Responsible Beverage Service (RBS) training (60 managers)</li> <li>Web-based training (1300 staff)</li> <li>Kick-off training (300 on managerial positions from all stakeholders)</li> </ul>	<ul style="list-style-type: none"> <li>Development of alcohol policy</li> <li>Collaboration with police &amp; licensing board to improve enforcement</li> </ul>

Figure 2: Entrance and serving staffs denial rates (%), at baseline and 2-year follow-up, toward obviously alcohol-intoxicated spectators, at licensed premises outside (internal control) and inside the arenas as well as at the entrances to the arenas.

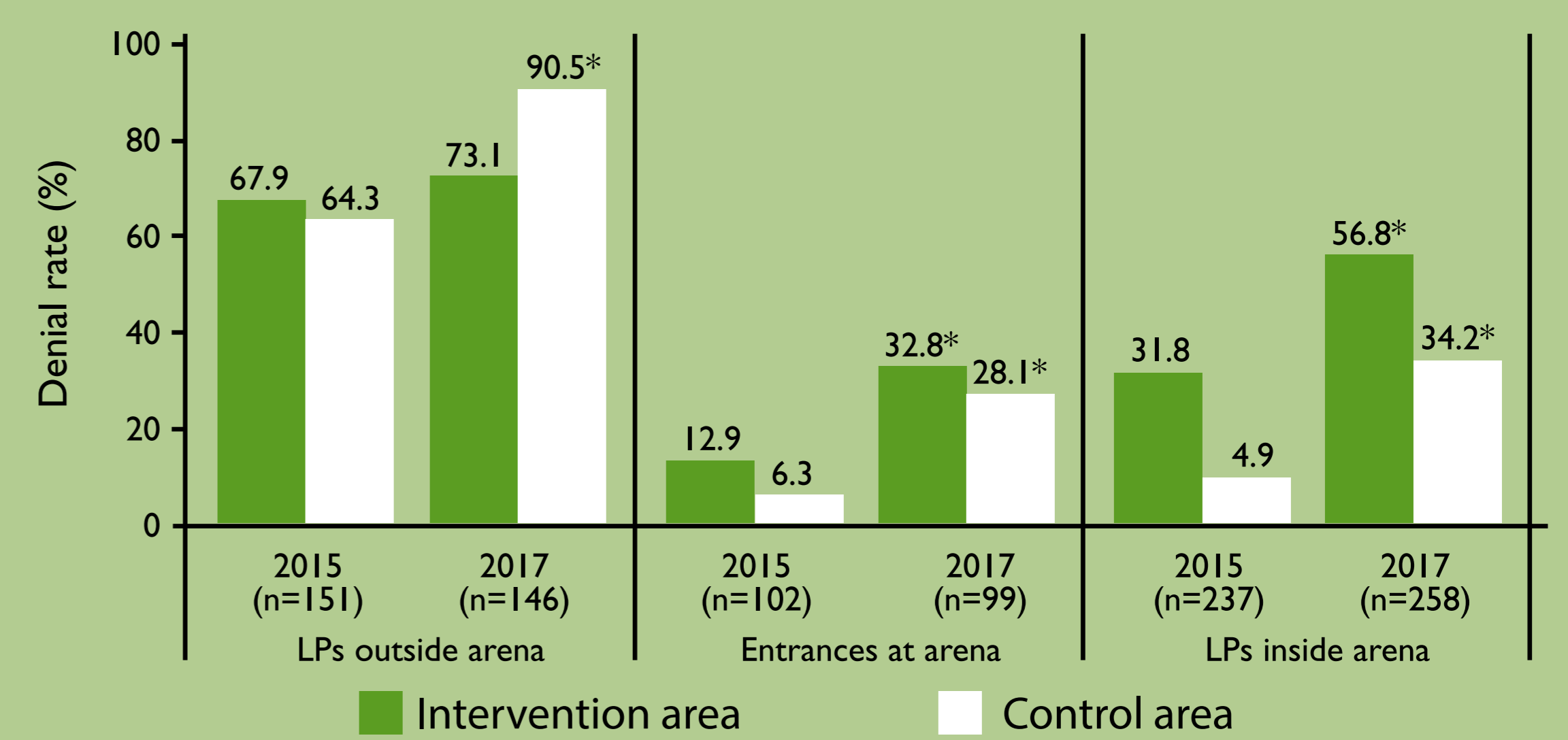


Figure 3: The proportion of spectators with a BrAC level (A) > 0‰ or (B) ≥ 1.0‰, and (C) the mean BrAC levels (‰), at baseline in 2015 (n=4420) and follow-ups in 2016 (n=2326) and 2017 (n=3450), in both the intervention (green) and control area (white).

