

How can we change smokers' littering behaviour?

The introduction of smoking zones, with their innovative design nudging smokers to do the right thing, can reduce cigarette littering by 89%

Cigarette litter: the problem

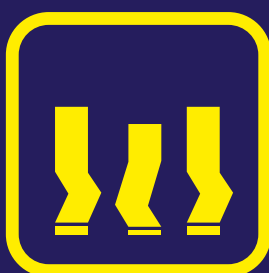
Around 9.75 million adults in England claim to smoke.¹ On 1 July 2007, it became illegal to smoke in virtually all enclosed public spaces including offices, pubs, bars and restaurants. Since the smoking ban, the sight of people smoking in public open spaces has become increasingly more common across Britain. This is evidenced by increased amounts of cigarette litter left in our open spaces. This is especially the case outside buildings such as train stations, airports and shopping centres where people have not been able to smoke for a prolonged period of time.

High concentrations of people smoking in public open spaces can lead to a number of problems, including cigarette litter.

Through our research,² we know that smoking-related litter is the most frequently found type of litter in England and is found in 73% of all areas we surveyed, with retail and commercial areas being the most highly affected. Approximately 30% of litter is smoking related³ and this works out to 244 million cigarette butts dropped in the UK per year, equivalent in weight to 13 double-decker buses.



9.75
MILLION
adults in England
smoke



244
MILLION
cigarette butts
dropped in the UK
per year



89%
REDUCTION
in the number of
smokers observed
to be littering their
cigarette butts



Our research⁴ showed that many people who wouldn't litter other items do litter cigarettes. While smokers understand that dropped cigarette butts are litter, they often treat them differently because they are small, on fire, smelly, often perceived as biodegradable and are frequently seen on the ground littered by others. Smokers who participated in our research agreed that in order to encourage responsible disposal of butts, cigarette bins should be easy and quick to use, showing no visible evidence of cigarette ends. Additionally, bins should be dedicated exclusively to cigarette waste to reduce the perception of a risk of fire. Smokers also emphasised that the poor provision of bins was a major issue for them as they were unlikely to walk far in order to find one.



This information, combined with the large number of adults claiming to smoke, helps put the issue of cigarette litter in perspective. Even though cigarette butts are small, the large number of people in England who smoke and how they treat cigarette butts differently from other types of waste means that local authorities constantly struggle to keep up with the frequency with which cigarette butts are littered. The City of London alone spent £3.8 million clearing up its streets, including over 6 million cigarette butts dropped in the City's Square Mile.⁵

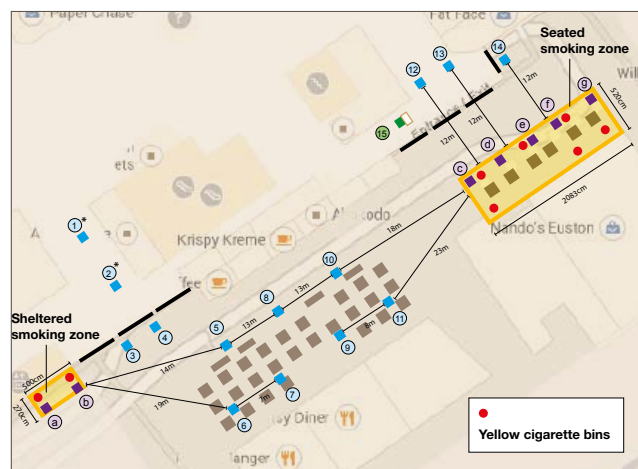
Keep Britain Tidy's Centre for Social Innovation

Founded over 60 years ago, Keep Britain Tidy is a leading environmental charity that fights to improve the environment at a local and global level for the health and enjoyment of all. Through our education and campaigning work, we help people to better understand, value and actively care for their environment.





Euston Station Cigarette litter Experiment - Intervention plan



Floor signs: smoking symbol

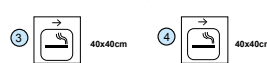


Floor signs: smoking symbol + meters

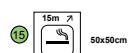


*We suggest these signs are placed inside or next to the 'Way out' signs leadint to the exit

Floor signs: smoking symbol + arrow



**Wall mounted signs:
arrow + meters + smoking symbol**



Floor signs: arrow + meters + smoking symbol



Today, we use and champion evidence-based practice across all areas of our work and we are constantly looking for new approaches for tackling complex environmental issues. In 2014, with support from Defra, we established our Centre for Social Innovation to help us understand issues and develop new ways to positively influence people's behaviour for the benefit of society and the environment.

Developing a solution for cigarette litter

In 2014, Keep Britain Tidy developed and piloted an experimental intervention called 'smoking zones' to encourage people to correctly dispose of their cigarette butts.

We chose hotspots – where people congregate to smoke, specifically outside transport hubs and shopping centres – for the delivery of this project.

Keep Britain Tidy set out to design smoking zones within larger public spaces that are smoking hotspots. Adults were encouraged to smoke in the smoking zone, a place where they were allowed to smoke, rather than a more conventional approach telling smokers where not to smoke.⁶ It was also crucial to 'nudge'⁷ smokers to use the smoking zone through attractive and well-placed signage. The zones were designed to congregate smokers in a small area that included prominent disposal facilities for cigarette butts to reduce littering.

⁶ Research has shown that displaying no smoking signs can have the opposite effect to the one intended, encouraging instead of discouraging smoking behaviours; our minds disregard negations so a 'no smoking' sign, tends to be read as 'smoking'. For more see Brian Earp, Brendan Dill, Jennifer Harris, Joshua Ackerman and John Bargh, 2013. No sign of quitting: incidental exposure to "no smoking" signs ironically boosts cigarette-approach tendencies in smokers. ⁷Hansen, PG & Jespersen, AM (2013) Nudge & The Manipulation of Choice – A Framework for the Responsible Use of the Nudge Approach to Behaviour Change in Public Policy, The European Journal of Risk Regulation, Volume 1, 2013, 3-28

An added advantage of smoking zones was that smoke was kept away from other users of the surrounding space.

The intervention was based upon a trial in Copenhagen Airport by Pelle Guldberg Hansen to prevent second-hand smoking.⁸ We worked with two partners to deliver the trial: Network Rail's team at Euston Station and Cambridge City Council.

At Euston, the experiment used the Piazza, the station's outdoor waiting area with restaurants, cafes and benches. Before the intervention, there was only one cigarette bin in the target site, serving hundreds of commuters and travellers who were smoking cigarettes. We identified two areas for the smoking zones: directly next to the Western entrance – a small area where smokers already tended to congregate – and directly in front of the Eastern entrance, making use of existing seating facilities.

Floor signage sign-posted smokers towards where they could smoke as they left the building. The smoking zones were clearly marked with a yellow border, but no fences were installed.

Keep Britain Tidy also approached a bin manufacturer to supply specially-designed cigarette bins to install in the smoking zones. These were made from bright yellow plastic to make them noticeable and easily identifiable.

We used the Behavioural Insights Team's EAST Framework to create an easy, attractive, social and timely behavioural intervention. The smoking zones made it:

- easy for smokers to correctly dispose of cigarette butts
- attractive to smokers by catching their attention and giving them somewhere to smoke rather than telling them where not to
- social, as more smokers used the zones, others followed
- timely, as they were near exits of the station

The experiment was conducted between October 2014 and January 2015; the smoking zones were installed in November and the yellow lines and signs refreshed in mid to late January.



Euston Station: smoking zone after completion

⁸ When prescription works better than proscription. www.inudgeyou.com

Monitoring and evaluation

The robust monitoring and evaluation of smokers' behaviours in the target sites was crucial to measuring the impact of the interventions on cigarette littering. Keep Britain Tidy conducted the monitoring as follows:

- behavioural observations at the target sites for two weeks before the intervention, two weeks and six weeks after the smoking zones were installed
- intercept interviews with users of the sites before and during the intervention

What were the results?

The experiment found that the smoking zones were very effective in reducing the littering of cigarette butts. Overall, our results show that there was a 34% decrease in littering behaviour after the installation of the smoking zones. Of equal importance, is the fact that this trend did not appear to reduce after longer term monitoring.

Furthermore, when we compare the results obtained from inside and outside of the smoking zones, it shows that less than 8% of smokers littered their butts inside the smoking zones, compared to 71% who littered them outside of the smoking zones. This represents a reduction of 89% when smokers are inside the zones. The bright yellow cigarette bins proved to be easy to use and were liked by smokers. Previous research has demonstrated that people treat cigarette butts differently to other types of litter and making disposal easy and convenient is essential.

Our partners see the potential of this intervention to be applied in other areas where they are experiencing issues with cigarette litter:

"It's good because we were seen to be doing something. Usually we have wall bins and people don't notice them."

There are also likely to be positive results for non-smokers using the spaces:

"We are going to continue to use the bins... We may install more [bins] such as in the staff smoking area round the side."

"It [the issue with smokers] has improved, people tended to [smoke] near the doors and people passed through a cloud of smoke..."

"I think the experiment is a very good idea. It has helped to improve the quality of the area for the residents. It could help people to take more ownership and responsibility of the area that they live in but it is also about educating people."

The partners were very satisfied with the project. They thought the smoking zones were valuable and a very good idea. Euston has continued using the smoking zones and plans to use permanent paint to demarcate them and to create an additional zone.





Taking the intervention further

Overall, smoking zones have successfully reduced cigarette litter using cost-effective methods. Creating smoking zones ensures that smokers have a place to smoke, while non-smokers could enjoy a smoke-free space.

We believe that this intervention should now be replicated nationally to ensure there is the provision for smokers to dispose of their waste appropriately. It must be noted that behavioural observations and intercept interviews confirmed personal obligation from smokers to dispose of their cigarettes in ashtrays is very low, with proximity to ashtrays, laziness and habit being key drivers for the littering behaviour.



This intervention is crucial to tackling cigarette litter. The expert messaging and nudge techniques developed by Keep Britain Tidy, alongside the suitable very visible provision, have the potential to be highly effective in reducing the problem at smoking hotspots. This, alongside the development of different approaches, will be needed to tackle the low personal obligation of smokers to bin their cigarettes in areas where ashtrays are not easily reachable or convenient or when smokers are in transit.



Keep Britain Tidy has developed a low-cost offer to introduce smoking zones in new places and is looking for partners and funding to set up new zones across the country. We are targeting airports, rail and bus stations, shopping centres, football stadiums and events such as music gigs.

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