



Smoking-related Litter

Keep Wales Tidy 2018



cadwch keep
gymru'n wales
daclus tidy

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Summary

Smoking is still a popular habit in Wales. As cigarette ends are dirty, there is a desire to dispose of them quickly, and smoking-related litter (predominantly cigarette ends) is the most common type of litter found on our streets. The issue is considered to be a problem by the people of Wales.

Cleaning smoking-related litter costs the taxpayer millions per year. Cigarette ends are not biodegradable, meaning that they stay in the environment for a long time. Their small size makes them easily transportable, meaning that they reach our waterways and eventually the coast. They can pollute waters and are potentially deadly to wildlife. Cigarette ends also leach toxins, may be accidentally ingested and can cause fires. They therefore have serious consequences for our health and wellbeing.

This paper explores some research on the smoking-related litter as well as the many methods which have been adopted to tackle the problem. These include receptacles for responsible disposal, attempts to change behaviour, educate and campaign, legislation and enforcement measures as well as innovative solutions. It also considers the role of government and the tobacco industry.

The paper concludes with a series of broad recommendations to help inform policy and which can translate into practical and effective action. To achieve behaviour change and make the irresponsible disposal of cigarette ends and other products associated with smoking socially unacceptable, all sectors must work together, with society having a key role to play.

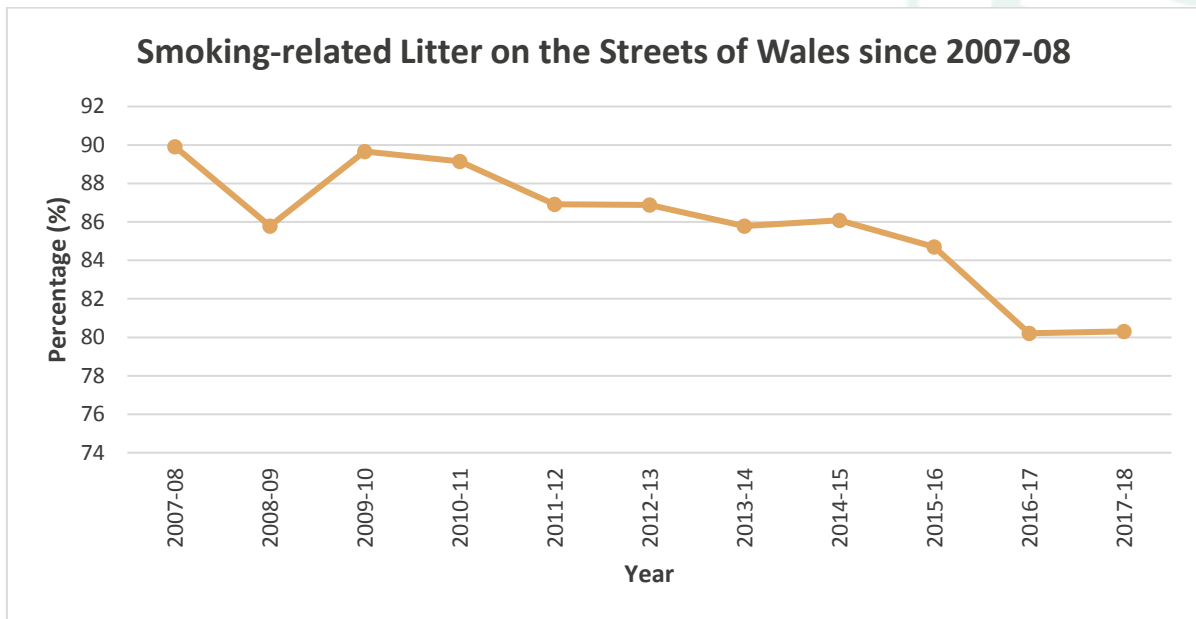
Introduction

Smoking remains a popular habit in Wales. In 2017-18, almost a fifth (19%) of adults smoked (21% men and 17% women), and 7% used e-cigarettes (8% men and 6% women).¹ Smoking-related litter is the most widespread litter found on Wales's streets, and this has been the case ever since Keep Wales Tidy started undertaking street cleanliness surveys nationwide in 2007-08.² This litter type includes all items associated with smoking, including packets, pouches, matches, match boxes and lighters, along with items associated with e-cigarettes such as liquid bottles and box packaging. However, it comprises predominantly of cigarette ends. Therefore, this paper will primarily concentrate on cigarette ends.

Understanding the Problem

It is estimated 122 tonnes of smoking-related litter is dropped in the UK every day³ and that 244 million cigarette ends are littered in the UK every year (equivalent to the weight of 13 double-decker buses)⁴. Street cleanliness surveys in Wales show that smoking-related litter is widespread on our streets.

Figure 1: Average Percentage of Smoking-related Litter on the Streets of Wales⁵



While remaining the most common type of litter, the presence of smoking-related litter has decreased gradually over recent years, with a figure of 80.3% recorded for 2017-18. Smoking-related litter is also the most common type of litter found in England and Scotland - with 73% of sites effected in England in 2014-15⁶ and over half sites audited in Scotland having a presence of cigarette litter in 2016-17⁷. In England, smoking-related litter accounts for 35.2% of total litter.⁸ However, it should be noted that direct comparisons between the nations are not possible as the survey methodologies used are slightly different.

Although cigarette ends are small, that doesn't mean that they are not problematic. While smoking-related litter is widespread across the streets of Wales, it's particularly problematic when it gets caught in between paving stones or trapped in tree grates. The small size of cigarette ends makes them time consuming and costly to clean,⁹ and easily transported by wind and water. It is estimated that cleaning up smoking-related litter in Wales costs £18.7 million per year (2012 figure).¹⁰ Cleansing is critical as litter sends a signal that nobody cares and therefore tends to attract more litter and can even lead to more serious crime as illustrated by the 'Broken Windows Theory'¹¹. This is supported by the fact that 14% of Welsh litterers agree with the statement '*If an area is run down I don't see a problem dropping litter*'¹². However, it is also important to recognise that a truly clean street is one that isn't littered in the first place.

Smoking-related litter is also a problem on our beaches. Not only are cigarettes dropped onto our beaches, but some smokers drop cigarette ends directly down drains. Even cigarette ends dropped on the street are often transported by wind or water to our drains and from here they are carried by rivers to the coast. In 2017, cigarette ends were the fourth most common type of litter found on our beaches during The Marine Conservation Society's Great British Beach Clean, at 34.5 stubs per 100m.¹³ It was recently reported that cigarette ends are the most counted items found on Europe's beaches.¹⁴ Keep Wales Tidy is also aware of some cases of vaping litter (from e-cigarettes) found on beaches, which will require further monitoring in case it becomes more of a problem in the future.

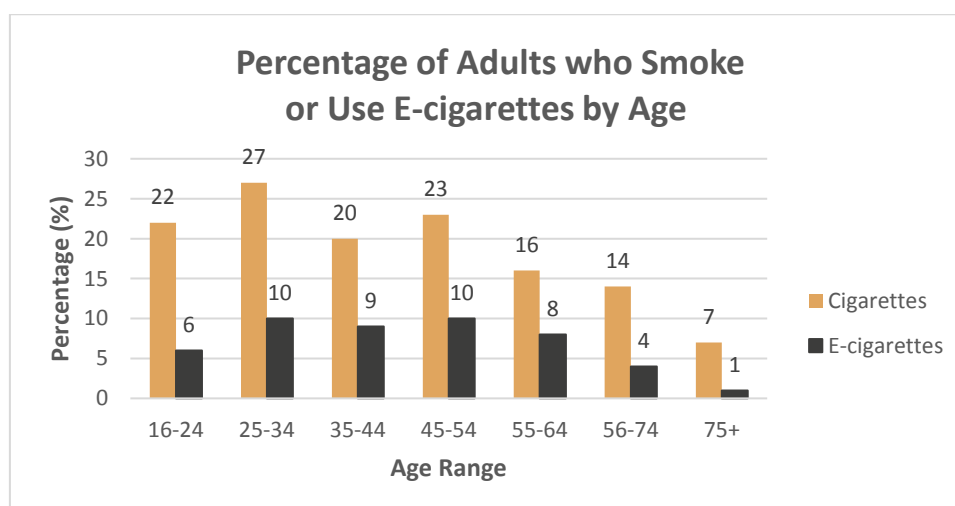
In order to comprehend the problem of smoking-related litter, it's important to understand the issue of smoking in Wales. The figures below (using data from the National Survey for Wales 2017-18), show smoking rates by local authority and age range.

Figure 2: Smoking and e-cigarette use Rate by Local Authority¹⁵

	Smokers	E-cigarette Users
Blaenau Gwent	22	9
Bridgend	20	7
Caerphilly	21	9
Cardiff	16	6
Carmarthenshire	19	7
Ceredigion	17	8
Conwy	16	5
Denbighshire	18	6
Flintshire	21	6
Gwynedd	19	6
Isle of Anglesey	19	7
Merthyr Tydfil	23	7
Monmouthshire	13	5
Neath Port Talbot	26	9
Newport	20	6
Pembrokeshire	20	9
Powys	18	5
Rhondda Cynon Taf	20	6
Swansea	20	8
The Vale of Glamorgan	17	8
Torfaen	18	9
Wrexham	21	7

The smoking rate ranges from 13% in Monmouthshire to 26% in Neath Port Talbot. The higher figures are concentrated in some of the south Wales valleys local authorities (Merthyr Tydfil and Blaenau Gwent), while the lower figures are seen in Cardiff and Conwy. E-cigarette use ranges from 5% to 9%.

Figure 3: Smoking by Age¹⁶



Smoking occurs most between the ages of 25 and 34. After the 45-54 age range, smoking declines with age and is lowest in the 75+ age group. The pattern is similar for e-cigarette users.

Smoking rates increase with deprivation, with adults in the most deprived areas twice as likely to smoke and use e-cigarettes than those in the least deprived areas.¹⁷

Among those who use e-cigarettes, 47% are smokers, 50% are ex-smokers and just 3% have never smoked.¹⁸

Between 2007 and 2017:¹⁹

- The numbers of teenagers smoking have decreased, but there has been a larger drop among girls.
- Of working adults, although smoking remains highest among those in routine and manual work, it has decreased across all parts of the adult working population.
- Smoking has increased slightly among those in long term unemployment and those who have never worked.

This helps illustrate some of the conditions which mean that smoking rates are higher in more deprived areas and therefore suggests that smoking-related litter would also be higher in these areas.

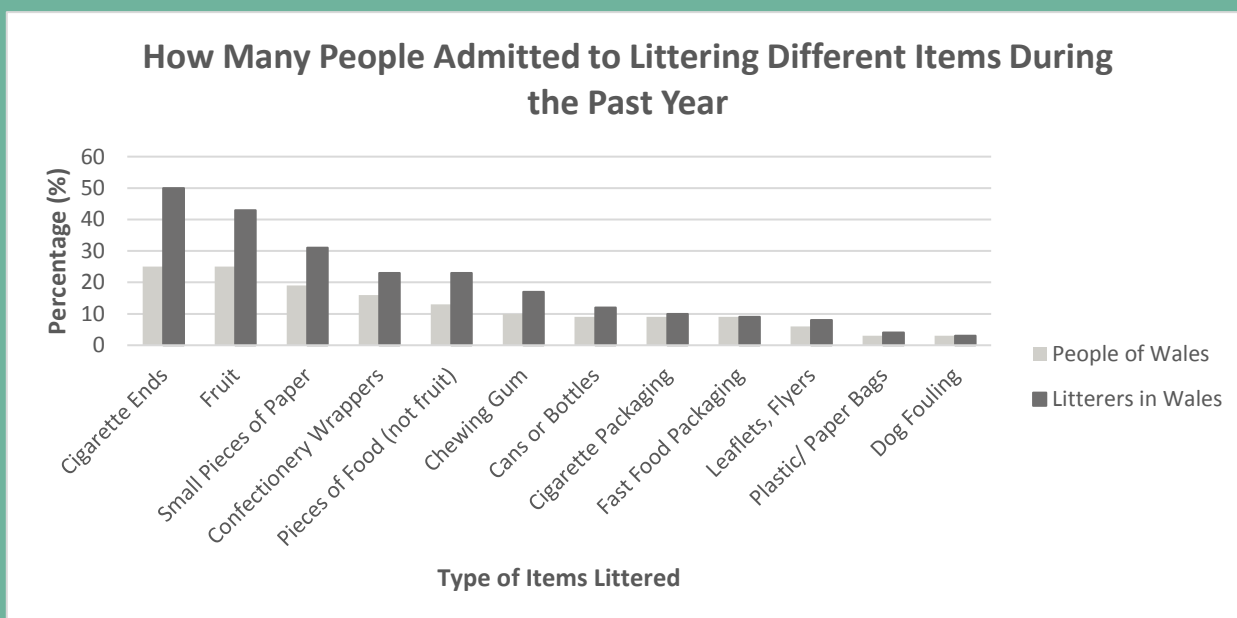
Smoking and smoking cessation is also therefore an issue of social justice and should be noted when developing behaviour change interventions, whether they are health or litter related.

It is worth noting that the UK has the third biggest market in the world for vape products.²⁰ Since most of these are re-usable,²¹ this (along with the reduced number of people who smoke) may already be a contributing factor in the gradual reduction seen in smoking-related litter.

Spotlight On: Litter in Wales Research - Smoking Litter

The people of Wales believe that smoking-related litter is a problem in Wales. People think that smoking-related litter has a negative impact on the areas in which it occurs. Cigarette ends were mentioned by 60% of people (the 4th highest) while its packaging was mentioned by 50% of people. Welsh people also see this type of litter regularly, with cigarette ends seen by 54% of people (the most common item mentioned in the research) and its packaging mentioned by 32% of people. Cigarette ends are one of only three items identified by the research as being high in both impact and extent (along with chewing gum and cans or bottles).

Figure 4: Proportion of People who have Littered Different Items During the Past Year



Cigarette ends are the most common type of item littered by both the Welsh public (25%) and specifically by Welsh litterers (50%). The figures admitting to dropping cigarette packaging are 9% of the Welsh public and 10% of Welsh litterers.

The research noted higher than average rates for littering amongst the younger age group (16 to 34-year olds). This was particularly true for cigarette packaging where littering levels were 6% above the average. Contrary to this was the littering habits of those in the 55+ age range, who litter significantly less (10 percentage points) cigarette ends than the total for litterers across Wales.

The research breaks down littering by socio demographic groups. Those in the lower socio-economic group are more likely to litter cigarette ends in the last year (59% have done so) compared to the total of 50% for litterers across Wales. It is important to note that the higher rates of smoking amongst this group may explain why the rate of smoking litter is higher amongst this demographic.

Other findings from the research relating to smoking-related litter include:

- 47% of Welsh litterers agreed with the statement '*With cigarette ends there's no alternative but to stub them out on the floor*'.
- Being a 'dirty' item made it more likely to be dropped, instead of holding on to it.
- Smokers were reluctant to dispose of their cigarettes in a litter bin in case this resulted in a fire.
- People saw less harm in dropping smaller items such as cigarette ends.
- People thought it was unlikely that they would be fined for dropping cigarette ends (with the exception of respondents in Carmarthen, where there this had recently been subject to regional media).
- A common scenario mentioned was discarding an item like a cigarette end or chewing gum at the bus stop as the bus approached, without thinking about it.

Source: Beaufort Research (2010). *Litter in Wales: Understanding Littering and Litterers*. (Unpublished).

It seems that smoking-related litter, particularly cigarette ends, being small is not thought to be litter by some smokers. Any doubt on this subject was swiftly pushed aside with the introduction of the Clean Neighbourhoods and Environment Act 2005, where litter was defined to include products designed for smoking²².

Contrary to the belief held by some, that cigarette ends are biodegradable, they are made of cellulose acetate (or as one article describes them, '*...just pieces of non-biodegradable plastic...*'²³). In fact, more than 12,000 individual plastic fibres are packed tightly together to create a filter.²⁴ Unfortunately for communities and local authorities, cigarette ends can remain in the environment for up to 15 years²⁵. Biodegradable 'Greenbutt' filters are being manufactured, which are made from natural fibres,²⁶ and these were granted their first patent in the UK in December 2016²⁷ but have yet to become mainstream. Some in the industry have recommended replacing the plastic filters with biodegradable ones, but since these would still leach out toxins while falsely giving the impression that these were environmentally-friendly, it has been suggested that filters are banned altogether.²⁸

The impacts of cigarette litter go beyond the blight to our communities. They '*...contain the carcinogens, nicotine and toxins found in all tobacco products*'²⁹, which leach into the environment within an hour of exposure³⁰. This has serious consequences for the environment and to our health. Not only was it found that '*...one cigarette butt soaked in a litre of water for 96 hours leaches out enough toxins to kill half of the fresh or salt water fish exposed to them*', but it has also been suggested that the sheer amount of cigarette ends littered annually could leach out toxins which could have an impact on human health.³¹ Furthermore, cigarette ends have been found in the guts of whales, dolphins, turtles and sea birds who have mistaken them for food, which can have the following impacts:³²

- Leaching of toxic chemicals
- Inflammation of the digestive system
- Blocking the gut - which can result in death

Cigarettes can also be ingested by children. Research into accidental ingestion of cigarettes and cigarette ends in the USA in 1997 found that a third of the 146 infants in the study experiences illness, with vomiting the most common symptom (reported by 87% of those effected).³³

Cigarette ends should be fully extinguished as well as disposed of responsibly. In 1985, 56 people were killed and more than 250 injured by a fire at Bradford City Football Club, and in 1987 a fire at King's Cross Underground Station

claimed 31 lives - both disasters are thought to have been started by smoking-related litter.^{34, 35} In 2011, the UK Government announced that ‘...careless disposal of cigarettes is the single biggest killer in house fires’.³⁶ This again, is potentially a social justice issue.

Spotlight On: Worldwide Research on Smoking-related Litter

An American study which surveyed 2,000 people to look at attitudes and behaviours around smoking-related litter, found that most people:

- Could identify that cigarette ends were the most commonly collected item on beach clean-ups (71%), thought that cigarette ends were toxic (75.8%), and considered cigarette ends to be litter (91.8%)
- Thought disposing cigarette ends in bins could be harmful (84.3%)
- Disagreed or didn't know that cigarette ends are biodegradable (82.4%) and harmless when eaten by people (90.9%) or marine animals (90.7%)

Despite the knowledge demonstrated in the figures above, 74.1% of smokers said that they'd littered their cigarette ends at some time in their life, while 55.7% admitted to doing so during the past month (although it is recognised that, in reality these figures could be higher). However, it is interesting to note that:

- Those who didn't believe or weren't sure whether cigarette ends were litter were more than three and a half times as likely to having littered their cigarette ends at some time in their life
- Those who didn't believe that cigarette ends were litter were four times as likely to have littered their cigarette ends during the past month

Consequently, the research suggested that education is still needed and that campaigns could impact behaviour if they emphasised that cigarette ends, even in the smallest amounts, are litter. However, it stated that care is needed with the language used, stressing that the public could be really concerned if the true environmental impacts were highlighted, citing an example used by the Cigarette Butt Pollution Project: *'Butt waste isn't just litter: Filters falsely reassure smokers, and cigarette waste damages habitat, landscapes, and ecosystems; ignites destructive, deadly fires; poisons wildlife and children; consumes tax dollars for cleanup and disposal; and lasts forever!'*³⁷

Research in New Zealand considers littering as a 2-stage process, consisting of firstly placing the item somewhere and secondly failing to remove that litter when vacating the area. It also considers two types of littering: active (where litter that's kept in the hand is left when the area is left) and passive (where litter is placed in an occupied area, and is left behind when the person leaves). It also says that passive littering is less obvious and therefore likely to have less social consequences; and more resistant to change. The study showed that:

- Cigarette ends were littered at a significantly higher rate and were more resistant to change than other items of litter
- Although passive littering was about twice as likely as active littering of cigarette ends, these items were more likely to be actively littered than other items of litter
- Once cigarette ends had been placed somewhere, the rate of picking them back up was minimal compared to other items of litter

Sources:

- Rath, Jessica M. et al. (2012). Cigarette Litter: Smokers' Attitudes and Behaviors. *International Journal of Environmental Research and Public Health*. 9 (6), 2189-2203.
- Sibley, Chris G. and Liu, James H. (2003). Differentiating Active and Passive Littering A Two-stage Process Model of Littering Behavior in Public Spaces. *Environment and Behavior*. 35 (3), p415-433.

Interventions and Solutions

Receptacles for Responsible Disposal

Many smokers tread on their cigarette ends to reduce the fire risk and are reluctant to dispose of their cigarettes in a litter bin in case this resulted in a fire. With this in mind, local authorities should ensure that all new litter bins include a metal stubbing plate. However, even on litter bins which include such a metal plate to stub out cigarettes, Keep Wales Tidy staff sometimes see cigarette ends left on top of bins which, if a flat design, can easily be blown by the wind onto the ground. Therefore, bin design is also important, with non-flat designs preferred.

Many local authorities and businesses provide specific bins to dispose of cigarette ends, and there are a variety of designs available, although some businesses provide sand in buckets as cheap alternatives. Some local authorities have specific bin preferences. For example, Cardiff Council favours smoking litter bins which fulfil the following criteria:³⁸

- Floor mounted
- Black
- Metal lined
- Metal, square outer body
- Black shell with gold council logo and gold trim (city centre and conservation areas)
- Flush to the floor to prevent litter and debris build up underneath
- Triangular allen key system
- Cigarette tray on top (specification)
- Bilingual signage and national branding

However, it appears that such policies are the exception rather than the rule. A recent local authority survey into 'binrastructure' by the Association for Public Service Excellence, showed that of 46 UK wide responses 'Only 24% of respondents had a strategy or policy in place regards the types of litter bins to be used as well as clear criteria as to their locating. Many respondents generally placed litter bins out as a result of requests from the public or elected members or based on past historical need.'³⁹

Spotlight On: Structural Solutions

Structural solutions can be an effective means of reducing litter. A study in the central quad of Victoria University, in Wellington, New Zealand, for example, found that introducing additional ashtrays and litter bins reduced cigarette end littering by more than 80% at first, and by 50% after a year.⁴⁰ As a solution to small items of litter - particularly cigarette ends and chewing gum - Zilch UK sells micro-bins (a photograph can be seen in the appendix), which are well liked and made primarily of repurposed materials.⁴¹ Unlike common bins, which are expensive, require specialist fitting and aren't optimised for these litter types, these micro-bins - which have an aluminium liner and stubbing plate - cost less than £10 each and are very easily fitted by cable ties, self-adhesive or can be screw mounted.⁴² A trial of these bins in March 2016, using 15 micro-bins around one of the busiest railway stations in the UK, led to a reduction of approximately 80% in the number of littered cigarette ends within 3m of the bins.⁴³ Zilch UK also sells similar, but slightly larger mini-bins.

While it should be noted that it's neither practical or realistic in terms of cost to provide bins everywhere, the lack of bins is often given as an excuse for littering, which highlights their importance. A recent House of Commons report about litter in England recommended that '...all public buildings install receptacles for disposing of cigarette-related litter in those areas where staff congregate to smoke...'.⁴⁴ More businesses should also take responsibility for the problem by installing bins. Businesses wanting to install litter or specific cigarette bins outside their premises

need to discuss this with their local authority to ensure highways requirements are met. Some local authorities provide bins for public use outside businesses, while some will install bins purchased by businesses. However, it is also worth stressing the importance of emptying and maintaining these bins so that the contents don't end up as litter in the surrounding area.

Cigarette bins are normally concealed, either as they are designed to blend in with street infrastructure or by being located away from the general public. To maximise their use, it would be better for them instead to be highlighted. Having more uniformity in bin design would help with this, but differences in requirements (such as size) and space (free standing or wall mounted) make this difficult. An easier way to make smoking bins more uniform and therefore easily identifiable would be to use consistent text and/or a logo. It is common to see this sort of consistent messaging being used on general litter bins but is not applied to cigarette bins. This is another missed opportunity in terms of engagement and awareness.

As cigarette ends are dirty, there is a desire to dispose of them quickly and portable ashtrays such as stubbies and ashcans have been designed in an attempt to provide a solution to the problem. Keep Wales Tidy has freely distributed over 140,000 of these to smokers across Wales since 2007. Hubbub recently ran a similar campaign on Villiers Street, London, while also using giant cigarette ends (a photograph can be seen in the appendix) to highlight that cigarette litter is '*no small problem*'.⁴⁵ These giant cigarette ends have also been used by Wandsworth Council in London.⁴⁶ Other simpler alternatives can also be used, such as empty film canisters, as promoted a few years ago by the Marine Conservation Society.⁴⁷ A variety of beach ashtrays have also been devised.

Behaviour Change

In 2013, a behavioural science group called iNudgeyou, led by Pelle Guldborg Hansen, attempted to reduce smoking in non-smoking zones outside Copenhagen Airport.⁴⁸ This was done by using nudges in an attempt to avoid non-smokers getting exposed to second-hand smoke. Across three sites, three nudges were used, as follows:

- Stickers on the ground showing the number of meters to the designated areas
- Clearly marked smoking zones containing ashtrays
- Benches moved into the smoking zones

These interventions led to a mean reduction of 49% in non-compliant smoking. The team returned three years later to see whether the impact had continued. This showed the importance of maintaining the intervention - the '*...well maintained intervention... showed little decrease in effect. However, when the zones had degraded, the effect decreased or even changed direction*'.⁴⁹

In 2015, Keep Britain Tidy undertook a similar project, using the iNudgeyou project as the model, with the aim of encouraging people to dispose of their cigarette ends responsibly.⁵⁰ Two designated smoking zones were created in London's Euston Station, which led to an overall reduction of 34% in littering behaviour, a trend which appeared to continue with longer term monitoring. Moreover, '*...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.*'⁵¹

As well as raising awareness and offering solutions, Hubbub has also run other smoking-related litter campaigns which aim to change behaviour, including:

- The Ballot Bin⁵² - an ashtray which allows smokers to vote with their cigarette ends by choosing one of two transparent receptacles, which creates an opinion poll (a photograph can be seen in the appendix). The questions asked can be customised to suit the target audience. In Villiers Street, London, the ballot bin reduced the number of smokers throwing their cigarette ends on the floor by 20% and has since been replicated

worldwide, reducing litter by up to 46%.⁵³ In order to work in the longer term, new incentives would however need to be developed on a regular basis.

- Fumo Musical Pole – *'An interactive smoker's pole that rewards the user with an audiovisual display, energetic tune and LED lights, when they dispose of their cigarette butts.'*⁵⁴ The pole can be seen in action here: <https://www.youtube.com/watch?v=eutUgxlqHRY>.

Education and Campaigns

Education and campaigns can be an effective way of raising awareness and encouraging responsible behaviour, and are particularly important considering that many smokers appear to treat cigarette ends differently from other types of litter. In 2013, Braintree Council in Essex ran a campaign called *'Is Your Butt Worth £75?'*, which raised awareness that cigarette ends are litter and that dropping them is an offence, specifically focussing on 2 train stations. Street Wardens waited at the stations at peak times, issuing Fixed Penalty Notices, and within a period of a month, cigarette litter dropped by over 45%.⁵⁵ ENCAMS (now Keep Britain Tidy) have run a series of partnership smoking-related litter campaigns in England. For example, its *'No Butts'* campaign along with 32 local authorities and 2 large supermarket chains included distributing quarter of a million pocket ashtrays, a poster campaign and issuing Fixed Penalty Notices, and resulted in cigarette litter reductions of up to 35% across specific locations.⁵⁶

Organisations including The Marine Conservation Society and Surfers Against Sewage have run *'No butts on the beach'* campaigns. These are important in educating smokers about the problem and its impacts, but with many smokers dropping their cigarette ends down drains, there is more work to be done in educating people the effects of this behaviour and stressing that drains are not disposal facilities. The impacts of the irresponsible disposal of cigarette ends down drains and the fact that all drains lead to the sea are also among the campaign messages created by Zero Waste Scotland in a bid to tackle the problem of cigarette litter.⁵⁷

Future campaigns relating to smoking-related litter could be tied in with already-established days and campaigns in the calendar relating to smoking. These include No Smoking Day (which occurs on the second Wednesday in March each year) and Stoptober (the annual month-long campaign), both of which offer support to stop smoking.⁵⁸

The Role of the Tobacco Industry

Despite not being directly responsible for smoking related-litter, it would be fair to expect the tobacco industry to take some action on smoking-related litter. By law, health warnings must be included on tobacco products, but tobacco companies could also print litter awareness messaging on packaging, such as the non-biodegradable nature of cigarette filters and the impacts of littering cigarette ends on wildlife and the environment.

American research has not only highlighted that the industry has worked with anti-litter groups to *'...carefully steer anti-litter efforts in their favour...'* but also that industry sponsored research *'...may be inherently biased because the industry's priority to retain customers supersedes any sincere effort to fully understand why smokers continue to litter despite years of anti-litter campaigns'*.⁵⁹ A New Scientist article which considers the problem at a global level, goes even further, stating that while the industry is fully aware of the problem, it has - unlike other industries - distanced itself from any Extended Producer Responsibility, instead, relying on others to tackle the issue.⁶⁰

Spotlight On: Litter and Fly-tipping in England Report and Subsequent Litter Strategy

Despite some critical opinions of the industry, a 2015 report looking at litter in England says that it is eager to tackle the problem. However, it explained that the voluntary Local Government Declaration on Tobacco Control (LGDTCC) and the World Health Organisation's Framework Convention on Tobacco Control (FCTC) have hindered its efforts to work in partnership with other key stakeholders. These include the Local Government Association (and therefore local authorities), Keep Britain Tidy and Action on Smoking and Health (ASH). While legal advice given to the Tobacco Manufacturers' Association (TMA) said that there was nothing to prevent partners from working with the industry on litter, ASH said that *'...the FCTC and its guidelines make it clear that government endorsement, encouragement or engagement with tobacco industry Corporate Social Responsibility (CSR) activity is inappropriate as the tobacco industry can and has used CSR activity to create a more credible profile for itself and its policy positions.'*⁶¹ In light of the differing opinions between the industry and organisations, the report recommends that should organisations decide to work with the industry, any activity should not suggest support for the industry nor should the industry be allowed to publicise their contribution to it or use such a project to promote tobacco.

The report also recommends that the deadlock described above should not prevent the industry from working to tackle smoking-related litter independently. It goes on to suggest that the TMA provide free portable ashtrays at the point of sale to all cigarette customers.

In April 2017, the government published a Litter Strategy for England, which said that it was understandable that people *'...want to see the tobacco companies that profit from selling these items somehow contribute towards the cost of the clean-up...'* and stated that the industry had *'...given public commitments to provide free ashtrays at the point of sale and to fund the provision of specific litter bins that include ashtrays...'*⁶² It also referred to the situation which persists between the industry and others. It noted that while bodies should be compliant with the FCTC, the framework does not prevent bodies from discussing smoking-related litter with the industry and recommended that these should be fully transparent.⁶³

The strategy also recommends the promotion of litter-prevention partnerships among businesses.

Sources:

- House of Commons Communities and Local Government Committee. (2015). *Litter and Fly-tipping in England*. Available: <https://www.publications.parliament.uk/pa/cm201415/cmselect/cmcomloc/607/607.pdf>. [Accessed 12.07.17].
- HM Government. (2017). *Litter Strategy for England*. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/607747/litter-strategy-for-england-2017.pdf. [Accessed 13.07.17].

If it becomes apparent that vaping litter is more of a problem in the future, it may also be appropriate to engage with this sector of the industry too.

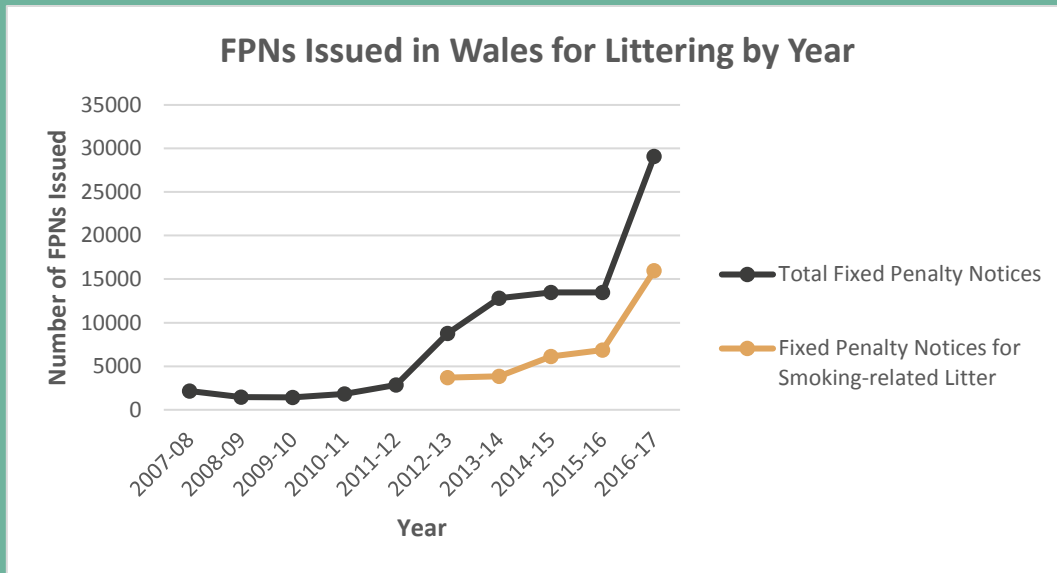
Legislation, Enforcement and Other Government Action

For those who fail to react to awareness raising, education, and engagement, it's important that another avenue is available to the authorities - that of the stick. The Environmental Protection Act 1990 (section 87) makes littering an offence and anybody caught doing so can be issued with a Fixed Penalty Notice (FPN).⁶⁴ This provides a way of offering someone who has committed the offence an opportunity to avoid prosecution by the court, by paying a sum of money. The amount can be set at a local level, between £75 and £150, with a default value of £75, but local authorities can choose to offer discounts for early payment.⁶⁵ Failing to pay the FPN can lead to prosecution, with a possible fine of up to £2,500.⁶⁶ Some local authorities offer alternative options such as Community Service.

Spotlight On: Fixed Penalty Notices Issued for Litter in Wales

Over the past few years, as more local authorities have turned to private companies to boost their enforcement efforts for environmental crimes, the number of FPNs issued for littering in Wales has increased significantly.

Figure 5: Number of Fixed Penalty Notices Issued for Litter in Wales between 2007-08 and 2016-17



While these figures vary significantly from place to place, people should no longer hold the belief that it's unlikely they will be punished. Since 2012-13, the Welsh Government (who collects this data from local authorities) has requested that the figures include a breakdown for smoking-related litter. Some local authorities are unable to give this breakdown as they don't record this data separately, meaning that the totals calculated for smoking-related litter in the graph are likely to be lower than the true numbers. Nevertheless, these figures have increased every year, with a sharp increase seen last year. The figure of 15,974 in 2016-17 makes up 54.9% of all FPNs for littering. This figure is more than 7 times the total FPNs issued for all littering in Wales in 2007-08.

Over recent years, litter enforcement in Wales has also had a higher profile on the news. In 2011, for example, after refusing to pay a £75 FPN issued by the local authority, a woman from Pontypridd who littered a cigarette end claimed she was willing to go to jail rather than pay a fine of £350 by the local magistrates (as well as £100 costs and a £15 surcharge).⁶⁷ Local authorities are also using new tactics to catch litterers such as publishing the images of offenders via social media, on their websites, or in local press to identify them and ease enforcement, as has been done recently in Rhondda Cynon Taf⁶⁸. Keep Wales Tidy's position on enforcement for littering and dog fouling is available here: <https://www.keepwalestidy.cymru/Handlers/Download.ashx?IDMF=7c04c8ee-bb2e-40e0-baec-bb7efdc5980f>.

Sources:

- Email from the Welsh Government's Local Environmental Quality Branch. 10.04.17.
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In 2015, Hong Kong ran 'The Face of Litter' Campaign, where DNA technology was used to create digital 'most wanted' posters which were plastered on bus stops and metro stations.⁶⁹ The samples provided enough information to predict many features including eye, hair and skin colour as well as ethnicity accurately⁷⁰, and the approximate age could be determined by combining demographics of the area and litter type, to '...put a face on this anonymous crime...'⁷¹. The campaign reached over 4 million people on social media, with a video and posts being shared across southeast Asia, the USA and Brazil.⁷² The BBC has also recently looked into how DNA technology can be used in the UK to catch offenders of environmental crime.⁷³

In 2011, Keep Wales Tidy re-established the National Enforcement Forum which brings together representatives from a number of organisations (primarily local authorities, but also the Police, the Fire and Rescue Service, Natural Resources Wales and Housing Associations) to share good practice in relation to local environmental crime enforcement. This has led to a number of positive enforcement-related actions, including:

- National days of action which have involved undertaken patrols, issuing warning letters and Fixed Penalty Notices, working with businesses and schools and distributing portable ashtrays.
- Education sessions led by experts in the field such as policy makers and lawyers. For example, Magistrates Training led by David Armstrong highlighted the difference made by providing all known evidence (such as costs and impacts of enviro-crime) to the resulting fines and costs awarded by the court. This led to Keep Wales Tidy developing a range of Community Impact Statements on topics including smoking-related litter. This has aided local authorities in the evidence they present in court, which has helped increase the fines issued.

By law, local authorities and other landowners have a duty to keep land for which they are responsible, clear of litter and refuse, and in 2007 the Welsh Government issued guidance to help local authorities carry out their duties⁷⁴. Further powers to tackle litter have since been introduced with The Clean Neighbourhoods and Environment Act 2005 (which as previously mentioned also clarified that products used for smoking were litter),⁷⁵ while The Anti-Social Behaviour, Crime and Policing Act 2014⁷⁶ can also be used to tackle the problem. Furthermore, under the Licensing Act 2003, some businesses are required to obtain Premises Licences. One of the main objectives of the licencing is the prevention of public nuisance, which includes litter.⁷⁷ This therefore provides local authorities with another means of tackling smoking-related litter and having receptacles for the responsible disposal of smoking-related litter (as well as other litter) should be a requirement as part of the license agreement.

Other legislation has also had an impact, primarily the ban introduced on smoking in enclosed public spaces, which came into force in April 2007 (similar bans were introduced in Scotland in March 2006, in Northern Ireland later in April 2007 and in England in July 2007). This ban has forced smokers to congregate outside, so smoking-related litter tends to be worse outside pubs and offices. ENCAMS - who helped Defra develop guidance⁷⁸ to prevent cigarette litter in England ahead of the ban - undertook a study to see the impact the legislation had had on smoking-related litter:⁷⁹

- The questionnaire to local authorities showed that 55% thought there had been a slight increase in smoking-related litter, while 30% believed that the legislation had led to a significant increase in the problem. The vast majority thought that that smoking-related litter had increased outside pubs and bars and 60% reported an increase in complaints about littered cigarette ends.
- Observational surveys showed not only an increase (27% to 34%) in the number of sites effected by the problem, but also an increase in the amount of smoking-related litter present.
- An omnibus survey of the public showed that almost a quarter thought there had been an increase in smoking-related litter since the ban, with 14% reporting a large increase.

However, last year it was reported that there are now 94,000 fewer smokers in Wales, compared to when the ban was introduced.⁸⁰ Surveys consistently show that around 70% of UK smokers want to stop.⁸¹ As well as the clear health benefits, one could expect that less people smoking would also have the environmental benefit of less smoking-related litter, and this legislation could therefore partly explain the decline in smoking-related litter over the same period. Any efforts to encourage smoking cessation should therefore be supported. Progress is being

made in the support offered to those who wish to quit smoking. [Help Me Quit](#), the Welsh stop smoking service was launched in 2017.⁸² However, continued financial support is needed for such projects to carry on making an impact. ASH Wales Cymru had a youth project called The Filter Wales, which ran a Commit to Quit course, and helped a record number of young people quit in its first year.⁸³ However, after five years supporting thousands of teenagers, it sadly shut down in March 2018 due to a lack of funding.⁸⁴

In October 2015, it became illegal to smoke in private vehicles when somebody under 18 years old is present,⁸⁵ which is likely to be already having an impact on smoking-related litter from cars. The car industry has also gradually been moving away from accommodating motorists who smoke. In 1994, Chrysler introduced its first car without ashtrays, while in 2013, Hyundai announced that it would eliminate cigarette lighters and replace them with USB charging points, so *'Despite continued availability of these smoking accessories, environmental health and safety laws, and cultural shifts continue to clamp down on smokers, and increasingly they're creeping into the cabin of their cars.'*⁸⁶ Such moves clearly help make smoking in cars less 'normal' - however, it also limits smokers' options for responsible cigarette disposal. Current legislation makes it very difficult for local authorities to enforce littering from vehicles. However, last summer the Welsh Government ran a consultation on the sustainable management of natural resources which included proposing legislative changes to tackle littering from cars: *'...the proposal is to provide Welsh Ministers with powers to amend the Environment Protection Act 1990 to allow for enforcement authorities to issue Fixed Penalty Notices where a littering offence has been committed in respect of the vehicle.'*⁸⁷ This is something that enforcement practitioners have been calling for for a long time and is strongly supported by Keep Wales Tidy. Unfortunately however, despite strong support, in June 2018 the Welsh Government announced that it would not be pursuing new legislative changes at present because the consultation identified some issues with the proposed new powers which require further consideration.⁸⁸ The statement said that the Welsh Government *'...will continue to engage with stakeholders and will explore how best to support Local Authorities in implementing their existing powers.'*⁸⁹

Recently, local authorities have also begun introducing voluntary smoking bans. Little Haven in Pembrokeshire became the UK's first smokefree beach in March 2016⁹⁰, with a pilot starting in Caswell Bay in Swansea the following month, when the Councillor cited smoking-related litter as a factor in the scheme⁹¹. As well as campaigning for smokefree beaches, ASH Wales Cymru has also been calling for smokefree playgrounds. This is supported by 82% of adults and as of March 2016, all local authorities in Wales had implemented voluntary bans.⁹² In May 2018, it was announced that Wales will become the first UK nation to extend the ban on smoking in outdoor areas, with plans to ban smoking in hospital grounds, school grounds and playgrounds by the summer of 2019.⁹³ This legislation will be introduced under the Public Health (Wales) Act 2017 and those who break the law could face a fine.⁹⁴ Not only will this protect non-smokers from second-hand smoke, but it is likely to lead to a significant reduction in smoking-related litter in these areas. Furthermore, it will help de-normalise smoking because the most important factor determining whether somebody will take up smoking is whether the people around them smoke - a child with two smoking parents is three times more likely than average to follow suit.⁹⁵ *'When smoking is made less visible, it is also made less convenient and less normal, with the result that fewer people start smoking, and more stop.'*⁹⁶

The government could also take other action. Since tobacco attracts such high levies (currently 16.5% of the retail price plus £4.16 on a packet of 20 cigarettes, for example⁹⁷) and the magnitude of the cigarette litter problem, the Communities and Local Government Committee recently declared their support that some of this money be hypothecated and passed on to local government towards the clean-up costs.⁹⁸ A report by Eunomia has voiced its disappointment that this does not go a step further in supporting an additional levy and states that simply 'ring-fencing' a proportion of existing levies would lead to less funding for other areas.⁹⁹ It recommends introducing an initial 1p per cigarette levy (which would raise almost £300 million per year in England), while suggesting that this could be reduced in time if there was less smoking-related litter, in order to provide a long-term incentive to smokers to dispose of their litter responsibly. Moreover, it states that the monitoring should be funded by the

industry (but should be independently verified), which would encourage them to develop new ways of changing behaviour. The report also mentions a deposit-refund system for cigarettes, but considers this to be too problematic, questioning for example, how cigarette ends would be measured in a cost-effective way to allow a refund to be provided to smokers.

Further afield, some countries have very strict smoking laws.

- In 2004, Bhutan became the first country to prohibit the sale of tobacco and to ban smoking in all public places (with the environment among the reasons cited¹⁰⁰), before forbidding the sale or smuggling of tobacco into the country in 2010.¹⁰¹
- In 2012, Costa Rica outlawed smoking in all enclosed public-access buildings (with no separate smoking areas allowed) as well as in other places such as taxis, buses and casinos.¹⁰²
- In Belmont, California, cigarettes are banned in multi-storey apartment blocks.¹⁰³
- Following up to 138,000 cigarette ends being collected along a beach in Phuket, it was announced in October 2017 that Thailand was introducing smoking bans on up to 20 beaches, with those caught breaking the law facing up to a year in prison.¹⁰⁴

While a ban on smoking in all outdoor public spaces is likely to have the biggest impact in terms of reducing smoking-related litter, it would likely lead to disproportionately impacting smokers in deprived communities. Many in such areas don't have their own private gardens or have only shared doorways (where smoking would be prohibited). This would mean that to uphold such a law, smoking inside their properties would remain the only viable option, which would have major health implications for families. Therefore, Keep Wales Tidy considers continuing to encourage more voluntary smoking bans in outside public spaces to be a better option, whilst increasing the level of smoking cessation support in those communities who are considered at particular risk.

Although both cleansing and enforcement are important, Keep Wales Tidy considers prevention the best solution to the problem. Tackling the issue at source through behaviour change is the most sustainable means of addressing irresponsible littering behaviours.

Innovation

Products have been designed to ease street cleaning, including the collection of small items such as cigarette ends. Litter collection vacuums have been designed - such as the Belgian Glutton Cleaning Machine - which has various nozzles to specifically help with cleaning smoking-related litter (including for difficult-to-reach areas like tree grates)¹⁰⁵. The development of such products also highlights the need to 'design-out' litter traps. Keep Wales Tidy has produced guidance on '*Designing for a Clean, Safe and Tidy Environment*'.¹⁰⁶

Terracycle is an American recycling company which collects and repurposes materials which are typically hard to recycle. In 2015, the company launched a programme which allowed individuals, groups, workplaces and councils to collect, pack and then ship the smoking waste (extinguished cigarettes, ash, filters, rolling paper, loose tobacco pouches as well as outer plastic and inner foil packaging) to be recycled for free.¹⁰⁷ The organic material (ash, tobacco and paper) which are composted, are separated from the plastic components, which are washed, shredded and mixed with other recycled materials and used to make a variety of plastic products.¹⁰⁸ Nothing goes to landfill. Commenting on the scheme's launch, Tom Szaky, the company's Founder and CEO said: '*The Cigarette Waste Brigade has the potential to drastically reduce the amount of cigarette waste that is littered.*'¹⁰⁹

Conclusion

As cigarette ends are dirty, there is a desire to dispose of them quickly, and smoking-related litter (predominantly cigarette ends) is the most common type of litter found on the streets of Wales and the fourth most common litter on our beaches. Cleaning smoking-related litter costs the taxpayer millions per year. Cigarette ends are not biodegradable, meaning that they stay in the environment for a long time. Their small size makes them easily transportable, they can pollute waters and are potentially deadly to wildlife.

Many methods have been adopted in an attempt to tackle the issue, including cleaning, installation/distribution of receptacles for responsible disposal, education and campaigns, innovation as well as legislation and enforcement measures. We along with other partners and the industry need to build on these by using the wealth of information available in the various research studies to move forward in changing behaviour and making the irresponsible disposal of products related to smoking socially unacceptable.

Policy Link

- [Environmental Protection Act 1990](#)
- [Licensing Act 2003](#)
- [Clean Neighbourhoods and Environment Act 2005](#)
- [Code of Practice on Litter and Refuse and Associated Guidance 2007](#)
- [Anti-social Behaviour, Crime and Policing Act 2014](#)
- [Welsh Government Fixed Penalty Notices Data](#)

Recommended Actions

Since prevention through behaviour change is the only solution which - by tackling the root of the problem - is sustainable, this should be the main focus going forward. Innovative developments could go some way to help, but by themselves they don't stop littering. Policy makers should be mindful of any unintended consequences of focusing on enforcement or bans to tackle the problem.

As with all environmental issues, smoking-related litter is caused by a minority of people but impacts on everybody. Tackling the issue shouldn't fall on one body working alone but instead all sectors collaborating, namely the industry, government (both national and local) and the third sector. Most important of all however is reaching those individuals responsible. This issue is everybody's responsibility, and smokers have a key role to play.

1. Monitoring

Surveying smoking-related litter is and will continue to be key to understanding the issue and monitoring the impact of any action taken. Keep Wales Tidy will continue to record smoking-related litter as part of its street cleanliness surveys across Wales and will publish the national figures annually as part of the All Wales Report. We will also continue to look at the results of The Marine Conservation Society's Beach Surveys with interest.

2. Responsible Disposal Solutions

Since cigarette ends aren't as easy to hold on to as other items of litter, bins are very important. Local authorities should be encouraged to require licensed premises to have sufficient receptacles for the responsible disposal of smoking related litter (and other litter) as part of the license agreement. This number could be dictated by the size of the premises. Considering that some smokers are reluctant to dispose of their cigarette ends in bins in case this resulted in a fire, local authorities should ensure that all new litter bins include a metal stubbing plate. They should also consider bin design and location, as well as highlighting their presence rather than concealing them. Currently however, many local authorities have no specific bin strategy or policy. More research should be done on this, building on previous work undertaken by Keep Wales Tidy and others on bins and designing out litter, including getting updated good practice from local authority partners. More businesses should also be taking responsibility for smoking-related litter by installing bins, and these need not be expensive. Consistent use of text and/or a logo as well as messaging on smoking-related litter bins could also be trialled.

Smokers' needs to dispose of their cigarette ends quickly suggests that having portable ashtrays more widely available would be an effective solution. See more information about the industry's role on providing portable ashtrays and bins under section 4 below.

3. Changing Behaviour, Education and Campaigns

With smoking-related litter being littered at such a high rate and being more resistant to change than other litter types, work which highlights the issue of smoking-related litter, its impacts and consequences are invaluable to changing behaviour. While this work tends to be restricted to a few specific locations (and are therefore limited in their reach as far as society-wide behaviour change across Wales is concerned), many have been successful in the areas in which they have occurred. They therefore provide useful lessons which can be learned from in the future.

As noted in this paper, the demographics most likely to smoke are the 25-34 age group as well as those in routine and manual work, the long term unemployed and those who have never worked. Therefore, education and campaigns should be targeted to these audiences, for example by focusing on deprived areas and places such as job centres.

This paper has highlighted several potential messages in relation to cigarette ends which could be used to try to change behaviour:

- Despite their small size, they are litter
- They are not biodegradable
- Littering them has serious consequences for health, wildlife and the environment
- Drains are not disposal facilities
- There are alternatives to stubbing out cigarettes on the ground and as long as they are properly extinguished, they can be safely disposed of in litter bins
- Like other litter, people can and do get fined for littering them

Working in partnership can help gain better and wider reach. Therefore, organisations should work together where possible to maximise the effectiveness of their work. This should include multi-agency support for voluntary smoking bans and projects which encourage smoking cessation.

4. The Role of the Tobacco Industry

The industry has already made commitments to provide free ashtrays at the point of sale and to fund litter bins that include ashtrays. Pressure should be put onto the industry to honour such pledges. A report on Litter in England

has already called for such action by the Tobacco Manufacturers' Association and such action is also needed in Wales. Portable ashtrays should not only be available but also prominently displayed at every point of sale of tobacco products and this should be a condition of their sale.

Other ways that industry should be taking more Corporate Social Responsibility are by:

- Contributing towards the clean-up costs of its products
- Including a strong anti-litter message on its packaging
- Joining meaningful and fully transparent litter prevention partnerships

5. Legislation and Enforcement and Other Government Action

If used effectively, enforcement can achieve much more than merely punishing offenders. Officers can also play a preventative role, particularly if they are highly visible, located strategically in hotspot or high footfall areas and they engage positively with the community by encouraging responsible behaviour.

Research commissioned by Keep Wales Tidy shows that only the people of Carmarthen thought that they might get fined for dropping their cigarettes and this was due to regional media coverage just prior to the study. This highlights the importance of making enforcement more high profile and maximising publicity relating to successful enforcement results, which can act as a deterrent.

A significant amount of legislation is already in place to help tackle litter and this should be used as widely and as effectively as possible. Funding from the Welsh Government has allowed Keep Wales Tidy to support enforcement practitioners through the National Enforcement Forum over the past few years. This includes a number of sessions which have focused on the Anti-Social Behaviour, Crime and Policing Act 2014, legislation which has given local authorities more power than ever to deal with litter. Subject to continued funding, we hope to continue to support our partners across Wales in the future.

Legislation and developments in car manufacture is clamping down on smoking in cars. Keep Wales Tidy will be keeping a close eye on the Welsh Government's support for local authorities trying to tackle littering from vehicles.

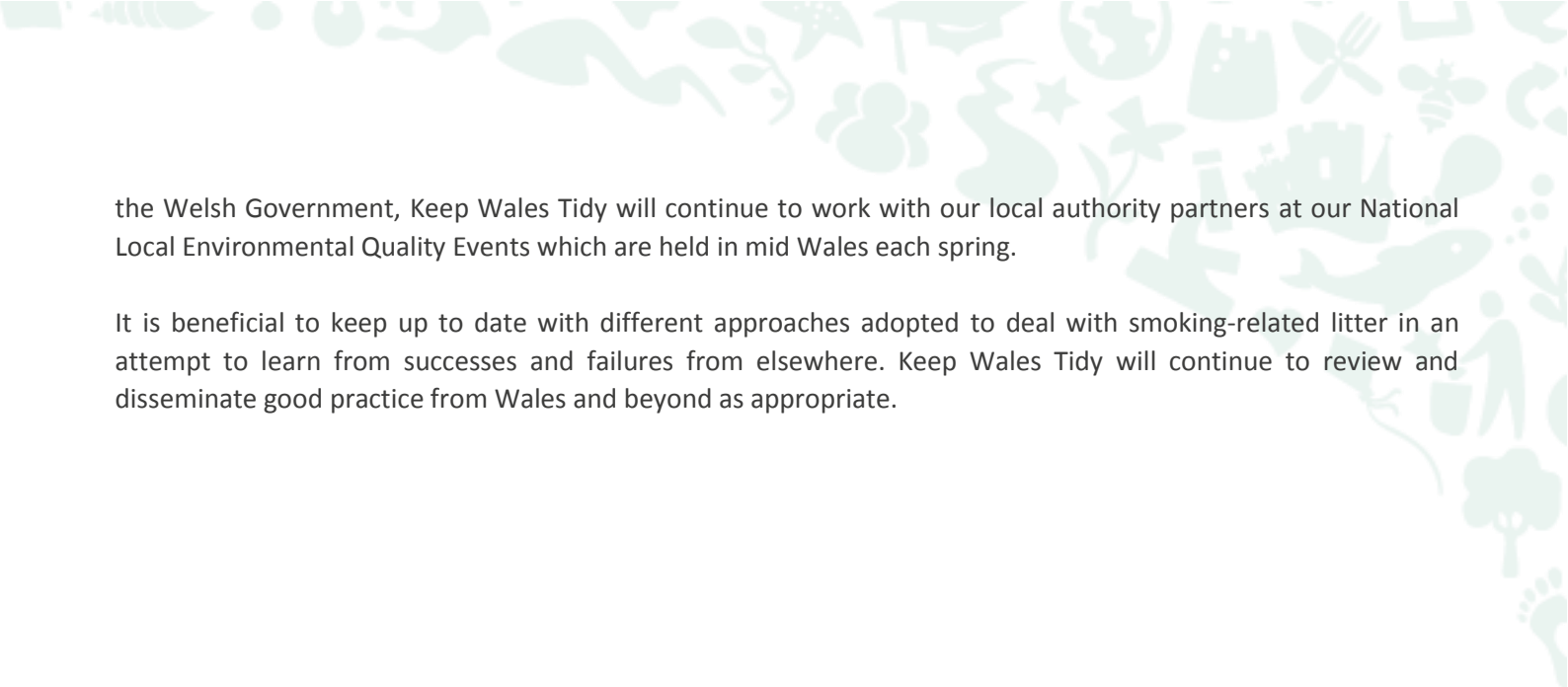
While 19% of the Welsh adult population smoke, all taxpayers are currently contributing towards the cost of cleaning up smoking-related litter from our streets. Westminster has already declared its support for ring-fencing a proportion of the current tobacco levy to support local authority clean-up costs, and there have also been calls to introduce an additional levy which would have the added benefit of helping change behaviour. Although levies are unlikely to be popular, they would certainly help in the fight against smoking-related litter.

6. Innovation

It is important, where possible, to support any innovative projects which aim to reduce smoking-related litter. Last year, Keep Wales Tidy announced its partnership with TerraCycle to tackle marine plastic pollution,¹¹⁰ and we hope to expand this in the future by joining its smoking waste programme.

7. Cleansing and Review

Although the recommendations have focused on prevention, we must recognise that behaviour change doesn't happen overnight. Therefore, effective cleansing will need to continue to be undertaken alongside behaviour change and other work. Good practice should be shared wherever possible, and subject to continued funding by



the Welsh Government, Keep Wales Tidy will continue to work with our local authority partners at our National Local Environmental Quality Events which are held in mid Wales each spring.

It is beneficial to keep up to date with different approaches adopted to deal with smoking-related litter in an attempt to learn from successes and failures from elsewhere. Keep Wales Tidy will continue to review and disseminate good practice from Wales and beyond as appropriate.

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Appendix

Photos

Zilch UK Micro-bin



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Hubbub Giant Cigarette Ends



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Hubbub Ballot Bin



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