The ‘filter fraud’ persists: the tobacco industry is still using filters to suggest lower health risks while destroying the environment

Karen Evans-Reeves ☞, Kathrin Lauber ☞, Rosemary Hiscock ☞

FILTERS AND HARM

Despite being labelled the “deadliest fraud in the history of human civilisation”,1 filter tips now feature on almost every mass-produced cigarette smoked across the globe.2 After filters first appeared in the 1860s as an attempt to protect against tobacco flakes entering the mouth,3 the tobacco industry introduced modern cellulose acetate cigarette filters in the 1950s to alleviate public concerns about smoking-related lung cancer.4 Filters and innovations to filters have been consistently marketed as a means to reduce smoking-related health risks,3 with the very name ‘filter’ suggesting reduced harm.6 For instance, filter perforations introduced in the 1970s and 1980s to create ‘light’ and ‘mild’ cigarettes produced lower machine-tested yields of tar and nicotine. When smoking, however, the perforations are blocked by smokers’ fingers,7 8 serving to increase rather than decrease harm as smokers take more frequent and deeper puffs to satisfy nicotine cravings.9 The overwhelming majority of independent research shows that filters do not reduce the harms associated with smoking2 7—–a fact understood by tobacco industry scientists in the 1960s.9 In fact, filters may increase the harms caused by smoking by enabling smokers to inhale smoke more deeply into their lungs.8 Furthermore, toxic fibres shed from the cut end of the filter are inhaled and ingested by smokers.3 A recent research letter reporting a study with contradictory findings10 has been described as a non-representative sample11 and failing to take into account confounding factors such as socioeconomic status.12

In addition, cigarette filters are an environmental hazard and are among the 10 most common plastics in the world’s oceans. Every year, an estimated 4.5 trillion cigarette filters are deposited into the environment. Discarded filters are commonly made of cellulose acetate, a plastic13 losing on average only 38% mass in two years of decomposition,14 and contain a number of toxic substances which may leach into the environment.15 16 In 2019, many single use plastics were banned in the EU. However, early proposals for Member States to reduce plastic waste from cigarettes by 50% by 2025 and 80% by 2030 were rejected in favour of weaker measures.17 Instead, tobacco companies must help raise public awareness of the plastic in their cigarette filters and contribute to the costs of clean-up, collection and waste treatment of disposed filters.18 Even these measures were resisted by the tobacco industry and its associates.19

Now tobacco companies are exploring the possibility of biodegradable filters. However, this should be regarded with caution. First, biodegradable filters would still leach harmful chemicals into the environment if discarded improperly16 and, second, it is likely that the tobacco industry will use biodegradable filters as both a Corporate Social Responsibility and a marketing opportunity. The potential unintended consequences would be reputation rehabilitation and consumers and non-consumers alike believing that filtered cigarettes are less harmful without plastic in their filters. Given that we know that tobacco companies are already marketing their filter innovations to retailers in a way that connotes health benefits, biodegradable filters are likely to be no exception and the filter fraud will be enabled to adapt and persist once more.

EXPLOITING REGULATORY LOOPHOLES

To reduce misperceptions about the relative harm of tobacco products, EU and UK tobacco packaging and product legislation prohibits the use of words such as smooth (light and mild) that have been prohibited in the UK since 2002) or any descriptors of taste or health (eg, natural, organic) from cigarette packs and all characterising flavours are banned.20 21 However, filter designs and innovations have been largely omitted from the legislation (with the exception of flavour features such as capsules). The tobacco industry is exploiting these loopholes by further innovating cigarette filters in order to differentiate its products and promotes these strategies to investors (figure 1).

In the UK, legislation prohibiting all advertising, including pack branding,22 means that tobacco companies cannot use conventional marketing methods. Therefore, they promote tobacco
products to retailers through adverts in the retail trade press. Many of these adverts include claims of improved filters. *Tube* or *flow filters*, for instance, have a hollowed or recessed section of filter at the mouth end which distances the discoloured end of the filter from the smoker’s lips.23 *Firm* filters are advertised as retaining their shape better than their conventional alternatives; *mineral* filters, often described only vaguely, are promoted in connection with taste improvements. Most recently, cigarettes with *crush* filters that mimic the now prohibited capsule filters have been introduced and are being marketed as the replacement cigarettes for former capsule smokers (figure 2).24

Associated marketing slogans convey connotations of cleanliness and reduced risk by promising improved filtration and hygiene,25 ‘cleaner’ stubbing out, ‘less smoke smell’ and a ‘smoother’ smoking experience (table 1). Tobacco company investor reports highlight filter innovations as ‘modern’26 and ‘progressive’27 features which improve brand popularity.

**CONCLUSIONS**

Filter innovations make cigarettes more appealing, in part by conveying a cleaner image. This is a disingenuous campaign led by the tobacco industry, considering that filters may serve to increase rather than decrease harm.8 Both EU and UK tobacco control legislation have failed to curtail the tobacco industry’s filter deception. Furthermore, marketing of cigarette filters in this manner is in stark contrast with the polluting effect disposed filters have on the environment. Although banning them would not only reduce plastic waste, removing ineffective cigarette filters also has the potential to support tobacco control efforts by making cigarettes less palatable, the EU’s Single Use Plastic Directive missed a crucial opportunity by excluding cigarette filters from its upcoming ban on some single-use plastics.17 In the UK, the tobacco industry’s new responsibility for smoking related litter clean-up has already been used as an opportunity to have in-person interaction with the government,30 thereby exploiting this as a loophole in the WHO FCTC treaty. Given the environmental devastation and the continued effort of the industry to use filter tips to ‘sanitise’ cigarettes for consumers, it is time for the public health and environmental health communities to unite to ban filters for the benefit of both people and planet.

**Table 1 Examples of filter innovations in the past 5 years (2015–2020)**

| Tobacco company          | Filter innovation | Year first introduced | Example brands* | Filter description/marketing slogan† |
|--------------------------|-------------------|-----------------------|-----------------|--------------------------------------|
| Philip Morris International | Firm filter       | 2017                  | Chesterfield (Menthol, Silver, Blue) | *Chesterfield with new premium features: Round corner box, firm filter*24 |
| British American Tobacco | Tube Filter       | 2016                  | Pall Mall Blue & Silver Capsule35    | *Improved Pall Mall range with taste plus filter*36 |
| Imperial Tobacco Brands  | Crush filter      | 2019                  | L&B Blue, JPS Players                 | *cool filter*; *For former Crushball smokers*24 |
|                          | Finest Filter      | 2015                  | JPS Silver Stream40                 | *bright air filter*30 |
|                          | Round Corner Box, Firm Filter | 2018 | JPS Silver Stream40 | *firm filter*40 |
|                          | Tube & firm filter (‘flow channels’) | 2015 | JPS Triple Flow41 | *smooth filter*40 |
|                          | Mineral & Tube filter (‘easy draw channels’) | 2015 | JPS Triple Flow41 | *Experience our ultimate smooth. Easy Draw channels, smooth tobacco blend, less smoke smell paper*44 |
| Japan Tobacco International | Tube filter      | 2020                  | Sovereign & Sterling New Dual43     | *flow tech*43 |

*These are illustrative examples which are focused on the UK market and, as such, do not include all brands covered by the filter innovations listed.
†Marketing slogans are included where a corresponding advert could be identified in UK trade press (2015–2017: The Grocer, Retail Newsagent, Wholesale News; 2018–2020: Retail Newsagent).
REFERENCES

1. Kennedy P. Who made that cigarette filter? 2012. New York Times Magazine

2. Proctor RN. Golden holocaust: origins of the cigarette catastrophe and the case for abolition. Oakland, CA: University Press of California, 2012.

3. Pauly JL, Mepani AB, Lesses JD, et al. Cigarettes with defective filters marketed for 40 years: what Philip Morris never told smokers. Tob Control 2002;11(Suppl 1):51–61.

4. Department of Health and Human Services, Public Health Service, National Institutes of Health. Smoking and tobacco control monograph No. 13: risks associated with smoking cigarettes with low machine measured yields of tar and nicotine. Bethesda, Maryland: National Cancer Institute, 2001.

5. Harris B. The intractable cigarette ‘filter problem’. Tob Control 2011;20(Suppl 1):10–16.

6. Filter (verb). Oxford Advanced Learner’s Dictionary. 2021. Oxford University Press. Available: https://www.oxfordlearnersdictionaries.com/definition/english/filter [Accessed 18 Jan 2021].

7. Gray N, Boyle P. Publishing tobacco tar measurements on packets. BMJ 2004;329:813–4.

8. Song M-A, Benowitz NL, Berman M, et al. Cigarette filter ventilation and its relationship to increasing rates of lung adenocarcinoma. J Natl Cancer Inst 2017;109. doi:10.1093/jnci/djx075. [Epub ahead of print: 01 Dec 2017].

9. Kozlowski LT, O’Connor RJ. Cigarette filter ventilation is a defective design because of misleading taste, bigger puffs, and blocked vents. Tob Control 2002;11(Suppl 1):40–50.

10. Tanner NT, Thomas NA, Ward R, et al. Association of cigarette type with lung cancer incidence and mortality: secondary analysis of the National lung screening trial. JAMA Intern Med 2019;179:1710–2.

11. National Lung Screening Trial Research Team, Aberle DR, Berg CD, et al. The National lung screening trial: overview and study design. Radiology 2011;258:243–53.

12. Clark J. Effect of socioeconomic class on mortality. Comment on “Association of cigarette type with lung cancer incidence and mortality: secondary analysis of the National Lung Screening Trial”. JAMA Internal Medicine 2019;179:1710–2.

13. Kabasci S. Chapter 4 — Biobased plastics. In: Letcher TM, ed. European Commission, 2019.

14. Bonanomi G, Incerti G, Cesarano G, et al. Cigarette butt decomposition and associated chemical assessments by 13C CPMAS NMR. PLoS One 2015;10:e0117393.

15. Novotny TE, Slaughter E. Tobacco product waste: an environmental approach to reduce tobacco consumption. Curr Environ Health Rep 2014;1:208–16.

16. Slaughter E, Ginsberg RM, Watanabe K, et al. Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish. Radiology 2015;276:1710–2.

17. van Schalkwyk MCJ, Novotny TE, McKee M. No more butts. BMJ 2019;367:l5890.

18. European Commission. Circular Economy: Commission welcomes Council final adoption of new rules on single-use plastics to reduce marine plastic litter. Brussels: European Commission, 2019.

19. European Commission. Synopsis Report Stakeholder Consultation. Brussels: European Commission, 2018.

20. Hiscock R, Silver K, Zatorzki M, et al. Tobacco industry tactics to circumvent and undermine the menthol cigarette ban in the UK. Tob Control 2020;29:tobaccocontrol-2020-055769.

21. Evans-Reeves KA, Hiscock R, Lauber K, et al. Prospective longitudinal study of tobacco company adaptation to standardised packaging in the UK: identifying circumventions and closing loopholes. BMJ Open 2019;9:e028506.

22. Action on Smoking and Health. Standardised tobacco packaging—removing the power of brands. London: Action on Smoking and Health, 2017.

23. Rosell S. Focus on the filter. 2016. Tobacco reporter. Available: https://tobaccoreporter.com/2016/08/01/focus-on-the-filter/ [Accessed 18 Jan 2021].

24. Unknown. Cool filter for imperial brands. 2020. Scottish Grocer. Available: https://www.scottishgrocer.co.uk/2020/11/02/click-filter-for-imperial-brands/ [Accessed 18 Jan 2021].

25. Unknown. BAT smooth flow filter, 2016. Retail Newsagent

26. Gray A. Investor day 2015: marketing strategy. London: British American Tobacco, 2015.

27. Cooper A. Half year results for the six months ended 31 March 2016. Bristol: Imperial Brands Plc, 2016.

28. British American Tobacco. Consumers and marketing. Capital Markets Day presentations 2017. London: British American Tobacco, 2017.

29. Imperial Brands. Interim Results 2019. Bristol: Imperial Brands, 2019.

30. Defra. Defra engagement with the tobacco industry on litter: minutes from a ministerial roundtable on smoking related litter. London: Government Digital Service, 2020.

31. British American Tobacco. Lucky strike advert, 2016. Retail Newsagent

32. Imperial Tobacco. JPS advert, 2016. Retail Newsagent

33. Philip Morris International. Marlboro advert, 2015. Retail Newsagent

34. Philip Morris International. Chesterfield advert, 2017. Retail Newsagent

35. Unknown. Philip Morris reveals new look for Marlboro. Talking Retail. Available: https://www.talkingretail.com/products-news/tobacco/philip-morris-reveals-new-look-marlboro-29-01-2015/ [Accessed 18 Jan 2021].

36. Simpson G. Exclusive: BAT introduces NPD to combat menthol ban, 2020. Asian Trader. Available: https://www.asiantrader.biz/exclusive-bat-introduces-ndp-to-combatmenthol-ban/ [Accessed 18 Jan 2021].

37. Selwood D. Pall Mall cigs get taste plus filter in range upgrade, 2016. The Grocer. Available: https://www.thegrocer.co.uk/marketing/pall-mall-cigs-get-taste-plus-filter-in-range-upgrade/534748.article [Accessed 18 Jan 2021].

38. British American Tobacco. Pall Mall advert, 2016. Retail Newsagent

39. Stein F. Scottish local Retailer, 2019. Available: https://www.sirmag.co.uk/bright-air-filter/ [Accessed 18 Jan 2021].

40. Unknown. Imperial tobacco reveals enhancements for 2018, 2017. Convenience store. Available: https://www.conveniencestore.co.uk/tobacco/imperial-tobacco-reveals-enhancements-for-2018/565542.article [Accessed 18 Jan 2021].

41. Unknown. Imperial Tobacco launches JPS Triple Flow, betterRetailing. Available: https://www.betterretailing.com/products/tobacco/imperial-tobacco-launches-jps-triple-flow/ [Accessed 18 Jan 2021].

42. Imperial Brands. JPS advert, 2015. Retail Newsagent

43. Cronin F. JTI unveils alternative tobacco products ahead of menthol ban. Talking Retail. Available: https://www.talkingretail.com/products-news/tobacco/jti-unveils-alternative-tobacco-products-ahead-menthol-ban-26-03-2020/ [Accessed 18 Jan 2021].

Evans-Reeves K, et al. Tob Control 2021;0:1–3. doi:10.1136/tobaccocontrol-2020-056245

Copyright 2020 by the European Society for Tobacco Control. All rights reserved. Reprints: book@tobaccocontrol.bmj.com. Quick Response Codes are available at the end of each article, indicating links to further information.