

APPENDIX C

Key Informant Interviews on Tobacco Product Waste

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Introduction

The University of California, San Francisco (UCSF), School of Nursing (Dr. Stella Bialous) conducted key informant interviews (KII) as a sub-award in support of the California Tobacco Control Program's (CTCP) *Tobacco Product Waste in California: A White Paper* (T. Novotny PI, San Diego State University Research Foundation (SDSURF), Contract 20-10206).

Methods:

Key informants were defined as those with knowledge of tobacco product waste (TPW) issues from three domains: tobacco control, environmental policy and advocacy, and public health policy. White Paper project staff and CTCP personnel suggested participants, and as participants agreed to interviews, additional participants were suggested for inclusion. Those with any ties to the tobacco industry or tobacco industry-funded organizations were excluded. Institutional Review Board review at UCSF and San Diego State University (SDSU) indicated minimal risk to participants, and the protocol was approved at each institution. Participants were contacted via email beginning in September 2021. An Information Sheet and Interview Guide (developed in consultation with CTCP) are included at the end of this summary.

Interviews were conducted over Zoom using the Interview Guide; these were video recorded and transcribed. The interviewees were asked to discuss their familiarity with TPW issues, policies to address TPW, gaps in information and knowledge, as well as recommendations and suggestions on how to address TPW in California.

Results

Nine KII with experts from tobacco control, environmental policy and advocacy, and public health policy and law were conducted from November 8, 2021, through January 11, 2022. Interviewees had a high level of awareness about the importance of addressing TPW and perceived it as the intersection between tobacco control and environmental policy. Beyond that, interviewees mentioned the importance of TPW as an environmental justice issue with some disadvantaged and marginalized communities. These are disparately targeted by the tobacco industry, are more affected by TPW than other communities are, and are more commonly exposed to environmental hazards.

An added advantage of this intersection is the opportunity to work with youth and other community members on the issue of TPW, as TPW is highly visible in many communities. There was a high level of agreement on the need for policies to address TPW at various levels of government (e.g., local, state).

Environmental / Social justice concerns

There were concerns that certain communities are affected more than others by toxic waste, including from TPW. Communities disparately affected include low-income communities and communities of color. Currently, the cost and labor burden of cleanup lies with local jurisdictions. Added to this, there is no clear guidance or understanding on how communities can properly dispose of any collected toxic TPW.

Another important concern was the burden to schools and school districts, which, for example, collect TPW, including electronic TPW, with no clear guidance on how to

store or properly dispose of this toxic waste. School districts in disadvantaged and underprivileged areas often have a higher burden of such waste. The KIIIs also highlighted the need to reach out to Tribal communities and understand their concerns related to TPW on tribal land.

Communication /Awareness raising needs

Several communication needs were identified as pivotal to advancing policies to address TPW. These include:

- 1) Unequivocal messaging in educational materials and statements is needed as to how a cigarette filter offers no benefit to health. Interviewees perceived that the public and policymakers lack clarity on this fact and its supporting evidence.
- 2) Communications should highlight that less than 12% of people in California smoke. Thus, 88% of the population are “being forced to deal” with TPW.
- 3) Visual aids/images portraying local level impacts of TPW are needed to educate the public and policymakers that TPW is an issue in every community.
- 4) Messaging is needed to highlight that electronic cigarettes and other electronic smoking devices and nicotine products and their accessories are a source of TPW.
- 5) Messaging is needed to demystify the tobacco industry’s “greenwashing” initiatives (e.g., litter clean-ups, ash cans, marketing products as “eco-friendly”, corporate responsibility programs), ensuring that the public is aware that these do not truly address the problem of TPW.

- 6) Messages need to bridge the gap between academic knowledge and public and political knowledge of TPW and its impacts, including a wider dissemination of the growing body of research on the evidence of harms of TPW.

Interviewees highlighted the need for communication materials that are available in a user-friendly format. Suggestions included: fact sheets, fact vs fiction sheets, infographics, webinars, billboards, and op-eds. The important thing is to find ways to synthesize complex scientific data, including by creating and disseminating materials to educate policymakers, advocates, youth, and other target groups.

Opportunities

- 1) Work with youth and communities to provide education and capacity building for TPW policy solutions. TPW is highly visible, but often ignored. Educational campaigns could change social acceptability of TPW in the same way that they have changed acceptability of other forms of waste (e.g., Styrofoam, plastic bags, single-use plastics).
- 2) Build on momentum for social and racial activism linking TPW with racial and social justice initiatives.
- 3) Consider establishing partnerships with tobacco retailers to understand their needs and concerns related to TPW and to gain support for initiatives to address TPW. Create educational materials and conduct outreach to retailers.
- 4) Establish partnerships with a range of environmental groups to continue to build synergy and strengthen representation amongst groups concerned about this

issue. Most importantly, establish partnerships with groups traditionally not associated with tobacco control.

- 5) Frame the “clean,” TPW-free, environment as part of communications, especially in areas highly dependent on tourism, with positive messaging.
- 6) Explore linkages between TPW harms and climate change, conservation of forests, and protection of waterways.
- 7) Incorporate feedback from both rural and urban communities on how to reduce the impact of TPW. This includes expanding the discussion to TPW related to smokeless tobacco products, and the environmental impact on farming, to address some of rural communities’ unique needs and concerns.

Research gaps

Research is needed on:

- 1) The potential effects of TPW on human health, including the potential for human ecotoxicity and the impact of microplastics from cellulose acetate fibers on the environment.
- 2) The impact of electronic cigarette waste (plastic, liquid, batteries) on the environment.
- 3) The environmental impact of TPW associated with smokeless tobacco products, including the containers (metal and or plastic), tobacco, and the pouches that the tobacco is stored in.
- 4) The impact of TPW on the food chain, including farm animals and waterways used in farming.

- 5) Management of waste streams for TPW, including cost-effective, safe strategies to prevent TPW leakage from waste streams.
- 6) Strategies to change social norms and behaviors related to improper disposal of TPW.
- 7) Economic studies, cost benefit analyses, and more quantifiable data to clearly state the amount of money that cigarette butts cost the state (or county or city) annually. This many include information on:
 - a. Costs to waste management companies, including insurance companies, to address toxic waste and fires (including those causes by e-waste)
 - b. Direct and indirect costs associated with TPW
 - c. Analysis of the cost-effectiveness of various policy proposals, including health costs, costs to reduce leachates, and costs to retailers if product sales are prohibited
 - d. Costs of fires associated with TPW, including from e-waste
 - e. Costs of TPW clean-ups, including costs to schools
- 8) The impact of TPW on disadvantaged and marginalized communities, including specific environmental risks from TPW, and disparities and environmental justice issues associated with TPW.

Policy solutions

Interviewees discussed a range of policy solutions, their advantages, and disadvantages. Reduction or elimination of the source of TPW was cited as the intervention with the potential for the greatest positive impact. Opinions varied as to

whether state or local level strategies were more effective, with an overall perception that state level solutions would be best, although harder to achieve, and that some local level initiatives could be implemented in the meantime. These strategies include:

- 1) Enact extended producer responsibility (EPR) policies, which would hold tobacco manufacturing companies responsible for the disposal of TPW.
 - a. A consideration is that, historically, EPR policies require industry compliance in developing a disposal strategy, and the tobacco industry should not be considered a trustworthy partner. Enforcement and the development of appropriate metrics could be challenging and require additional research.
- 2) Prohibit the sale of single-use filtered tobacco products (this would preferably be at the state level, but the model of local sales prohibitions of flavored tobacco products is one to consider, following local jurisdictions' initiatives).
- 3) Prohibit the sale of single-use plastics, which includes all single-use plastics associated with TPW.
- 4) Manage waste through green infrastructure and urban development and implement waste management design and structures to prevent TPW from reaching the environment. However, it is unclear if the small cellulosic acetate fibers from, for example, filter degradation, could be prevented from reaching the environment through a waste management policy (state, county, or city level).
- 5) Require changes in product design to eliminate TPW.
 - a. Emphasis to date has been on removing filters, but more discussion is needed on other tobacco products and whether waste could be addressed

through changes in product design as well as sales restrictions (state or federal level).

- 6) Enact “Take Back” policies where manufacturers are required to take back TPW after the products are used. This may require regulating disposal of this toxic waste. Such policies might need to be overseen by the state, and effectiveness of these policies would need to be carefully evaluated. A take back policy that places the burden on tobacco retailers to collect and correctly dispose of TPW was not considered to be a good option, as tobacco retailers may not want to shoulder the responsibility of managing toxic waste.
- 7) Enact policies that place responsibility on tobacco product users to properly dispose of TPW, accompanied by education campaigns.
 - a. While this strategy seems to interviewees as an acceptable downstream policy option, it was not considered the most effective strategy in the long term because TPW is still being produced and would still require regulation. This strategy primarily addresses the issue of littering. Therefore, eliminating the sources of TPW, (e.g. the filter), appeared to be preferable. Interviewees also suggested that potential policies related to tobacco users’ behaviors could also include an increase in the number of receptacles to collect TPW in public spaces.

Overall barriers to policies addressing TPW

As identified by interviewees, these included: the tobacco industry, tobacco-industry front groups and tobacco industry-funded allies, tobacco retailers, and other groups that may claim that TPW policies are anti-business.

Other considerations

Policies may be most successful at the local level in areas with low tobacco use, a low number of tobacco retailers, and/or high levels of commitment to environmental protection. There is always a potential for a lawsuit and/or for the tobacco industry to take legal action against policies. It is important to be prepared and willing to defend TPW-related policies. It is equally important that these policies are developed with legal technical assistance.

Policies to prohibit the sale of all tobacco products may not yet be fully accepted by society; however, there is a high need to increase community awareness about the harms of TPW on the environment and human health, as well as a need to support individuals who are trying to quit tobacco. Many interviewees mentioned that although individuals who use tobacco are a minority of the population, providing them with ongoing cessation support is vital.

Most interviewees linked TPW and fires and suggested that fire risk (housefires, structure fires, wildfires) could be another aspect to address when considering TPW-related policies. Policies promoting proper disposal or return to manufacturer schemes were discussed in passing by some interviewees, but not favored, as these types of policies may be difficult to implement logistically.

Conclusion

Overall, interviewed experts in all fields expressed an urgency to address the issue of TPW, and a preference for upstream policy solutions to address the primary sources of TPW pollution, going beyond cigarette filters. This should include waste from smokeless tobacco products, electronic smoking and nicotine devices, among others. Interviewees also expressed the need to address environmental justice issues, through the collection of more impact data and engaging with representatives from disadvantaged and marginalized communities that have been disproportionately targeted by the tobacco industry. Finally, several of the policy recommendations focused on creating tobacco industry accountability for TPW.

Tobacco Product Waste White Paper Key Informant Interviews

Information Sheet

We are asking you to take part in a research study being done by Jeremiah Mock and Stella Bialous at the University of California, San Francisco, in partnership with Dr. Tom Novotny from San Diego State University Research Foundation. The project aims to produce a white paper on tobacco product waste for the California Tobacco Control Program of the California Department of Public Health, and other research publications. Specifically, the white paper will:

- (1) summarize the effects of tobacco product waste on the environment and humans;
- (2) describe the role tobacco product waste may play in contributing to social disorder and stress in urban and disadvantaged communities;
- (3) describe the role of the tobacco and vape industry in producing and maintaining tobacco product waste; and
- (4) make recommendations for action that focus on upstream solutions that go beyond anti-litter campaigns and ash can approaches to the tobacco product waste problem.

We would like to interview you to learn more about your knowledge or engagement with policies or advocacy related to tobacco product waste. The interview will last 30 to 60 minutes.

You can skip questions that you do not want to answer or stop the interview at any time.

We will keep the data we collect confidential, and we will not share your personal information with anyone outside the research team.

Being in this study is optional. Please tell the researcher if you do not want to participate.

Questions? Please contact Jeremiah Mock (at jeremiah.mock@ucsf.edu) or Stella Bialous (at stella.bialous@ucsf.edu). If you have questions or concerns about your rights as a research participant, you can call the UCSF Institutional Review Board at 415-476-1814.

Thank you for considering participating in this study.

Questions for subject matter experts in tobacco control, environment, and public health law

These are guiding questions and some might generate requests for clarification, or more in depth information. We will start by introducing ourselves and going over the information sheet. We will end by thanking the participating, reminding her/him/they that we are available if any additional questions or comments arise post-interview.

1. What do you think are the main issues about tobacco product waste (TPW) in your field?
2. Please tell me about the most important knowledge on TPW you think should be highlighted in our work?
3. What are your recommendations for action that focus on upstream policy solutions to address TPW?
4. What are the barriers to taking these actions?
5. Tell me your thoughts about the gaps in the knowledge about TPW in your field.
6. Are there any materials or information that might be relevant that you would like to make sure have?