

ITC “spit and butts” pilot study: The feasibility of collecting saliva and cigarette butt samples from smokers to evaluate policy

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Abstract

Introduction: Large-scale epidemiological surveys have frequently relied upon clinic-based sample collection to incorporate biological data, which can be costly and result in non-representative data. Collecting samples in a nonclinical setting (i.e., through postal mail or at the subject’s home) offers an alternative option that is minimally invasive and can be incorporated into large population-based studies.

Objectives: (a) To assess the feasibility of collecting biological data from a cohort of smokers in the International Tobacco Control (ITC) study, through the mail and in the home; (b) to examine whether participants are representative of the population under consideration; and (c) to evaluate how the added burden of providing biomarker samples might impact subsequent participation in a follow-up survey.

Methods: Participants were asked to provide a saliva sample and five cigarette butts from cigarettes smoked on a single day, using standardized procedures. Sample collection kits were mailed to a random sample of 400 daily cigarette smokers who were involved in the 2006 annual ITC Four Country (United Kingdom, United States, Canada, and Australia) telephone survey and agreed to participate in sample collection. A random sample of 179 daily smokers who participated in a face-to-face ITC survey in Mexico and Uruguay and agreed to participate in sample collection were also asked to provide samples.

Results: Samples were collected from 96% of invited participants in the face-to-face surveys and 52% of participants in the telephone survey. The added burden of the sample collection did not reduce survey retention rates. Participants who initially agreed to participate in the sample collection were more likely to participate in the subsequent survey than participants who were not asked or declined to participate (odds ratio [*OR*] = 1.28; 95% *CI* = 1.01–1.62, *p* = .021). Further, those who provided samples were also more likely to participate in the subsequent survey than those who did not (*OR* = 2.78; 95% *CI* = 1.71–4.52, *p* < .001).

Discussion: Collecting saliva and cigarette butt samples from a group of smokers is feasible, yields a representative sample, and the added participant burden does not reduce subsequent survey response rates.

Recommended Citation:

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