

# Survey of the knowledge, perceptions and attitudes about tobacco harm reduction among General Practitioners in the UK and Sweden, including their understanding of the risks of nicotine and the key factors associated with the health risks of smoking

S. R. Patwardhan and M. A. Murphy. British American Tobacco (Investments) Limited, 4 Temple Place, London WC2R 2PG United Kingdom



Contact: sud@bat.com

## INTRODUCTION

Healthcare professionals (HCPs), including doctors, nurses, dentists, pharmacists and other health advisors often provide or are asked for advice on smoking cessation. Previous surveys of HCPs in the USA and Norway have investigated understanding of the relative risks of different tobacco products. Two separate studies undertaken in Norway demonstrated that adolescents and General Practitioners (GPs) overestimate the risks associated with the use of snus in relation to those associated with smoking<sup>1,2</sup>. For instance, only 36% of 900 Norwegian GPs believed that snus was much less harmful than smoking cigarettes; 14% believed it was at least as harmful and 1% thought snus was much more harmful than smoking. Norwegian adolescents aged 16–20 years rated cigarettes as generally more harmful than snus, but of 2415, 41% still reported that snus was at least as harmful as cigarettes, and half of those 41% felt that snus was more harmful. The researchers suggest that improved accuracy of information on the risk of different tobacco products might help consumers to choose products less harmful than cigarettes. Given that many smokers continue to smoke, it would be useful to explore the understanding of GPs about the risks related to tobacco products and tobacco harm reduction approaches, and what advice and treatments are being offered to smokers.

## OBJECTIVE

To investigate knowledge, perceptions and attitudes about tobacco harm reduction among GPs in the UK and Sweden, including their understanding of the risks of nicotine and the key factors associated with the health risks of smoking.

## METHODS

The fieldwork was conducted by a market research agency (Kantar Health, Epsom, UK), according to market research good practice guidelines (MRS, 2012). Respondents were recruited by specialist healthcare recruiters who work across several different regions of the countries (London, Manchester, Birmingham, Stockholm and Malmo) to ensure good geographical spread. Areas were selected that had large catchment areas so we could recruit GPs from several different primary care trusts or hospitals within the region, to try to obtain a range of perspectives. In the qualitative phase of the survey, GPs were interviewed individually for 1 h, led by a discussion guide. Questions covered background and responsibilities in relation to smoking policies and education, degree of professional involvement with smokers, approaches to smoking reduction and cessation, and understanding and perceptions of risk related to tobacco use, treatments and non-medical interventions. From the results of the qualitative phase, an online quantitative questionnaire was designed that included a combination of multiple-choice closed questions and open questions. It was administered to GPs and was intended to take 25 min. Surveys were administered in April and May, 2011. Invitations were sent to a panel of GPs who were on the market research agency's database and had registered willingness to participate in online research. Registered GPs with more than 3 years' experience in their current role were administered the survey. Respondents gave consent to inclusion in the study by clicking on the link to enter the survey. Anonymised data were collected and analysed.

## RESULTS

**TABLE 1: Perceived level of knowledge by GPs about the types of risks associated with cigarettes and nicotine**

Perceived level of knowledge	Cigarettes		Pharmaceutical nicotine		Nicotine in tobacco products	
	UK (n=100)	Sweden (n=120)	UK (n=100)	Sweden (n=120)	UK (n=100)	Sweden (n=120)
Extremely or fairly knowledgeable	87 (87%)	102 (85%)	39 (39%)	52 (43%)	48 (48%)	70 (58%)
Not very or not at all knowledgeable	13 (13%)	18 (15%)	61 (61%)	68 (57%)	52 (52%)	50 (42%)

**TABLE 2: Components of cigarettes GPs selected as being associated with health risks**

Component	UK (n=100)	Sweden (n=120)
Tar	94 (94%)	110 (92%)
Carbon monoxide	88 (88%)	107 (89%)
Nicotine	74 (74%)	104 (87%)
Smoke	67 (67%)	90 (75%)
Tobacco	58 (58%)	61 (51%)

**TABLE 3: Respondent GPs' relative ranking of nicotine in terms of health risks compared with other cigarette components**

Rank	UK (n=100)	Sweden (n=120)
1st	21 (21%)	42 (35%)
2nd	20 (20%)	14 (12%)
3rd	14 (14%)	18 (15%)

**TABLE 4: Respondent GPs' perceptions of types of risks associated with cigarettes, nicotine in tobacco products and pharmaceutical nicotine**

Type of risk	Cigarettes		Nicotine in tobacco products		Pharmaceutical nicotine	
	UK (n=100)	Sweden (n=120)	UK (n=100)	Sweden (n=120)	UK (n=100)	Sweden (n=120)
Lung cancer	100 (100%)	116 (97%)	31 (31%)	30 (25%)	8 (8%)	11 (9%)
Oral cancer	94 (94%)	97 (81%)	35 (35%)	56 (47%)	7 (7%)	18 (15%)
Other types of cancer	85 (85%)	100 (83%)	31 (31%)	36 (30%)	7 (7%)	16 (13%)
Respiratory diseases	97 (97%)	115 (96%)	27 (27%)	27 (23%)	9 (9%)	9 (8%)
Cardiovascular diseases	97 (97%)	111 (93%)	40 (40%)	70 (58%)	21 (21%)	41 (34%)
Causes harm during pregnancy	95 (95%)	110 (92%)	36 (36%)	55 (46%)	21 (21%)	34 (28%)
Damage to mouth/gums/teeth	95 (95%)	107 (89%)	34 (34%)	53 (44%)	21 (21%)	23 (19%)
Nicotine addiction	84 (84%)	98 (82%)	83 (83%)	101 (84%)	80 (80%)	96 (80%)
Behavioural addiction	85 (85%)	98 (82%)	75 (75%)	95 (79%)	67 (67%)	79 (66%)

**TABLE 5: Main benefits perceived by respondent GPs for a hypothetical, cigarette-like, NRT product licensed for harm reduction**

Benefits	UK (n=100)*	Sweden (n=120)*
Less harmful to health than tobacco	26 (26%)	41 (34%)
Mimics the sensory experience of a cigarette	24 (24%)	23 (19%)
Helps smoking cessation	19 (19%)	34 (28%)
Mimics the hand-to-mouth behaviour of a cigarette	13 (13%)	7 (6%)
The nicotine is inhaled into the lungs close to the speed of a cigarette	7 (7%)	5 (4%)
Looks like a cigarette	6 (6%)	4 (3%)
Maintains nicotine addiction	3 (3%)	5 (4%)
Only available in retail outlets where tobacco products are sold	2 (2%)	1 (1%)
Cost savings	1 (1%)	2 (2%)
No smoke	0	2 (2%)
Preferable to snus	0	1 (1%)
Rapid uptake for those addicted to nicotine	0	1 (1%)

**TABLE 6: Main drawbacks perceived by respondent GPs for a hypothetical, cigarette-like, NRT product licensed for harm reduction**

Drawbacks	UK (n=100)*	Sweden (n=120)*
Contains nicotine so may be addictive	25 (25%)	37 (31%)
Potential for abuse	22 (22%)	23 (19%)
May encourage users to migrate to tobacco products in the future	10 (10%)	19 (16%)
May appeal to children	11 (11%)	4 (3%)
The nicotine is inhaled into the lungs close to the speed of a cigarette	11 (11%)	12 (10%)
Only available in retail outlets where tobacco products are sold	6 (6%)	4 (3%)
Mimics the hand-to-mouth behaviour of a cigarette	5 (5%)	7 (6%)
Mimics the sensory experience of a cigarette	5 (5%)	5 (4%)
Looks like a cigarette	5 (5%)	8 (7%)
Potential harm of a cigarette	1 (1%)	1 (1%)
Unknown long term risks	0	2 (2%)
Cheaper	0	1 (1%)
Other	0	2 (2%)
None / no drawbacks	0	2 (2%)

## DISCUSSION

GPs in our survey perceived that they were fairly to extremely knowledgeable about the risks associated with smoking, but only around half felt as knowledgeable about nicotine in tobacco products, and fewer about pharmaceutical nicotine (Table 1). What GPs understand about the nicotine in different products, from where it is derived and whether it carries different degrees of risk (Table 4) might be useful to explore further. A majority of GPs in the UK and Sweden (74% and 87%, respectively) selected nicotine as one of the cigarette components to be associated with health risks (Table 2), while a total of 29% rated nicotine as having higher risk than other components of cigarettes (Table 3). It would be useful to explore also whether this belief arises from the role that nicotine plays in addition to tobacco products.

The findings for the hypothetical NRT product (Tables 5 & 6) indicated that GPs felt that tobacco-related harm could be reduced by use of such a product. That type of NRT product was viewed as having benefits that might encourage its use over the smoking of cigarettes. Sensory experience (smokers being able to mimic the actions of smoking) seems to be viewed as useful when helping patients to quit smoking. The most cited drawbacks for the hypothetical NRT product were nicotine addiction, possible appeal to children and the potential for abuse. The effects of different descriptions of products on acceptance and uptake could be useful to explore further.

## CONCLUSION

The self-perceived knowledge of surveyed GPs about nicotine in tobacco products and pharmaceutical nicotine might be useful to explore further in relation to public-health implications. The upcoming evidence-based NICE guidance<sup>3</sup> may provide a policy framework for GPs in the UK, which should be supported by educational campaigns. GPs should also feed back their experiences of treating patients who have been unable or unwilling to quit cigarette smoking as part of the development of education materials and guidelines. Public-health campaigns from governments and health organisations should clearly differentiate between the risks associated with cigarette smoking and the lower risks associated with nicotine delivered in gums, lozenges, electronic cigarettes, inhalers and non-combustible tobacco products such as Swedish snus. A shift towards a tobacco harm reduction approach that minimizes risks and decreases cigarette smoking-related total morbidity and mortality without completely eliminating tobacco and nicotine use could be a valuable addition to prevention and cessation approaches. This may have a major positive impact on public health and GPs could have an important role to play in making this change.

## REFERENCES

- Lund, I., and Scheffels, J. (2012), "Perceptions of the relative harmfulness of snus among Norwegian general practitioners and their effect on the tendency to recommend snus in smoking cessation", *Nicotine & Tobacco Research* Vol. 14, No. 2, pp. 169–175.
- Øverland, S., Hetland, J., and Aarø, L.E. (2008), "Relative harm of snus and cigarettes: what do Norwegian adolescents say?", *Tobacco Control* Vol. 17, No. 6, pp. 422–425.
- National Institute for Health and Clinical Excellence (2012) "Public health draft guidance—tobacco: harm-reduction approaches to smoking", available at <http://www.nice.org.uk/nicemedia/live/13018/61198/61198.pdf> (accessed 30 January 2012).