

definitions of the complications. We illustrated findings from our analysis with non-risk-adjusted depictions, but our study inferences were based entirely on the risk-adjusted results. Of the five “confounders” that Benjamin and Dodd mention, two we did include: emergency surgery and leukocyte-reduction status. Aminocaproic acid was uniformly administered, and operative blood loss was never estimated. The true confounder, reexploration for bleeding, is quantitatively captured (we believe) by considering units transfused. We also addressed temporal trends in the modeling, but the date of operation was not a significant variable. It is unclear to us how “season of surgery” can confound the analysis, since storage duration is storage duration, regardless of the season when the blood was procured.

With regard to Hall’s questions, we have previously examined the effect of red-cell transfusion by comparing patients who received transfusions with patients who did not.¹⁻⁴ The 13% difference in units transfused, which he calculates, is based on Table 1 of our article. However, the numbers of units (8802 units of newer blood and 10,782 units of older blood) excluded units with missing blood types. The total numbers of units transfused were 9210 (average, 3.21) in the newer-blood group and 10,832 (average 3.46) in the older-blood group (Fig. 1A of our article). The admixture group generally received more units of blood and had more complications. We do not know whether an admixture of newer with older blood negates the effects of older blood.

Regarding Habib and Zacharias’s comments, the exact timing of complications in relation to transfusion is problematic, since for each, the date of occurrence is recorded rather than the specific

hour. Of note, transfusion for our patients generally occurs early in the perioperative course; infection and prolonged ventilatory support are events that occur later. If a patient dies, this event certainly follows any transfusion. The expression of red-cell age was dichotomized at 14 days, but in the Supplementary Appendix of our article, red-cell age is expressed as the maximum age of any unit, and the nomogram shows that the older the red cells, the worse the survival rate.

Frenzel and colleagues inquire about our ABO blood-group data. These distributions were reflective of the diverse geographic distribution of our patients. In general, patients received type-specific blood. Preoperative autologous donation was rarely used; of note, autologous blood undergoes similar storage-related changes. Finally, we have no information suggesting that ABO blood type, anti-coagulants, and cell-saver use are confounders.

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Case–Control Study of Smoking and Death in India

TO THE EDITOR: The article by Jha et al. (March 13 issue)¹ on the large and growing number of deaths in India due to smoking draws attention to the need for effective implementation of the national tobacco control act of 2003 in India.² Recent data show that all forms of tobacco use in India increased during the 7-year period between the second National Family Health Survey (NFHS-2) conducted in 1998 and 1999 and the third NFHS (NFHS-3) conducted in 2005 and 2006.³ We ana-

lyzed data from these two nationally representative surveys and found that the greatest increase in tobacco use occurred in persons between the ages of 15 and 24 years, in the rich castes, and in urban areas (Table 1). These findings are consistent with an earlier warning by Reddy and others⁴ about a new wave of increased tobacco use in the young population and urban areas of India. One of the major challenges for effective implementation of India’s tobacco control act is the substan-

Table 1. Tobacco Use among Men between the Ages of 15 and 54 Years in India in 1998 and 2005.*

Characteristic	Smoking			Use of Smokeless Tobacco			Use of Any Tobacco		
	Prevalence (%)		Prevalence Ratio†	Prevalence (%)		Prevalence Ratio†	Prevalence (%)		Prevalence Ratio†
	1998	2005		1998	2005		1998	2005	
Age range									
15–24 yr	8.6	19.2	2.23	14.3	30.0	2.09	19.4	40.1	2.06
25–34 yr	29.1	36.3	1.24	29.9	42.6	1.42	47.6	63.4	1.33
35–44 yr	42.5	43.7	1.02	35.4	39.9	1.12	62.3	68.9	1.10
45–54 yr	45.8	45.2	0.98	35.1	35.8	1.01	65.2	68.4	1.04
Residence									
Rural	30.3	36.2	1.19	28.9	39.9	1.38	47.4	61.8	1.30
Urban	19.8	29.3	1.47	20.1	31.3	1.55	33.6	50.3	1.49
Education									
Illiterate	44.9	51.3	1.14	37.1	45.6	1.22	64.0	77.8	1.21
Literate	22.2	29.5	1.33	23.3	34.6	1.48	37.5	52.9	1.40
Caste‡									
Scheduled castes and scheduled tribes	32.6	39.4	1.21	32.1	43.2	1.35	51.3	66.6	1.29
Other backward communities	26.0	32.2	1.23	26.0	35.8	1.38	41.7	55.4	1.32
Forward communities	23.7	29.8	1.25	22.8	32.7	1.43	38.8	52.2	1.34
Standard of Living Index§									
Low	37.7	44.0	1.16	35.7	48.2	1.35	57.4	73.3	1.27
Medium	26.6	37.5	1.40	25.4	39.7	1.56	42.6	63.0	1.47
High	14.9	25.7	1.72	16.0	28.1	1.76	26.6	45.6	1.71

* Data are from the second and third National Family Health Surveys.

† Prevalence ratios compare smokers in 2005 with smokers in 1998.

‡ Indian society is categorized into four broad groups: scheduled castes, a categorization of very backward communities approved by the Indian government; scheduled tribes, a categorization of tribes approved by the Indian government; backward communities other than scheduled castes and scheduled tribes, which have been designated by the Indian government as being socially and educationally backward and in need of protection from social injustice; and forward communities, which consist of all the other communities.

§ The Standard of Living Index score ranges from 0 to 67, with 0 to 14 indicating a low score, 15 to 24 indicating a medium score, and 25 to 67 indicating a high score.

tial funding of major Indian political parties by tobacco companies.⁵

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TO THE EDITOR: In the article by Jha et al. about smoking in rural and urban India, the relative risks in a few subgroups (e.g., according to rural

or urban residence, educational level, and alcohol consumption) are shown, but the important variable of caste is omitted. The authors' categorization of the subjects as being Hindu, Muslim, or others is inadequate. The caste affiliation in India defines a person's socioeconomic position in society.¹ The government of India categorizes all castes and subcastes into six groups: others, other backward class (which includes all "upper-caste" Hindus), scheduled caste, scheduled tribe, Vimukta Jati, and nomadic tribe, in descending socioeconomic order. The scheduled caste, scheduled tribe, Vimukta Jati, and nomadic tribe are the lowest socioeconomic classes and most disadvantaged people. The caste system in India exists now as it has for more than 3500 years. Moreover, castism in India is much more inhuman than racism in North America. The lack of formal health insurance and inadequate social safety nets affect the poorest of the poor.² Ignoring castism in India would be worse than ignoring race in North America; ignoring castism denies socioeconomic disparities and their consequences.

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TO THE EDITOR: Jha et al. forecast about 1 million deaths per year from smoking in India. The investigators have rightly focused on smoking, but the almost ubiquitous habit of tobacco chewing also requires attention. The scourge of chewing tobacco can be estimated by the fact that oral cancer, which has a direct and causal association with tobacco chewing,¹ is among the most common cancers in Indian men.² Not only does this disease add to the burden of cancer in a country already struggling with limited resources, but the treatment of such cancers involves disfiguring surgery and radiotherapy with obvious consequences for the patient's quality of life.³ The relative risk of death from cancer would probably be greater if tobacco chewing was included along with smoking. The problem of smoking has deservedly received scientific attention, and we must expand this attention to cover tobacco abuse in all forms

and continue devising strategies to curb this global problem.

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THE AUTHORS REPLY: As Thankappan and Mini point out, smoking in India might well be increasing at younger ages but perhaps not as steeply as is suggested by the comparison between the NFHS-2, conducted in 1998 and 1999,¹ and the NFHS-3, conducted in 2005 and 2006.² The proportion of men between the ages of 15 and 24 years who smoke was much higher (19%) in the NFHS-3 than among our controls of the same age in 2004 and 2005 (10%). The 2004 survey of 1.3 million homes by the Registrar-General of India showed that 12% of boys and men between the ages of 15 and 29 years smoked (13% of boys and men in rural areas and 9% of boys and men in urban areas).³ These discrepancies require further investigation.

An increase in any type of smoking in persons at young ages would primarily affect deaths due to tobacco around the middle and later half of the 21st century.⁴ Potential increases do not affect our estimates that India will have about 1 million deaths from smoking per year during the 2010s (including 700,000 deaths among persons between the ages of 30 and 69 years) or our conclusion that smoking cessation is key to a reduction in deaths due to tobacco over the next few decades.⁵ Unfortunately, however, at 30 years of age or older, only 1.9% of Indian men and 0.2% of Indian women describe themselves as being former smokers.³

With regard to the comments of Pakhale, although caste was not recorded in our nationally representative study, we did examine risks according to the subject's educational level and urban or rural residence. Patterns of smoking in scheduled-caste populations are broadly similar to those among uneducated rural adults,¹ and both populations most commonly smoke bidis, which are

smaller than cigarettes and typically contain only about a quarter as much tobacco (they are wrapped in the leaf of another plant). In a comparison between smokers and nonsmokers, the relative risk of death from any medical cause did not depend on educational level, but it did depend on whether bidis or cigarettes were smoked and the amount smoked (Fig. 1). The risk ratio for a given number of bidis or cigarettes smoked was greater for cigarettes than for bidis. However, we found a dose–response relationship between smoking and mortality among men who smoked only bidis and among men who smoked only cigarettes ($P < 0.001$ for both trends), with particularly elevated risk ratios for cigarette smoking.

In response to Pandey and Pandey, the additional adjustment for tobacco chewing did not materially alter the relative risk of death from any medical cause or the relative risk of death from cancer in a comparison of smokers and nonsmokers.

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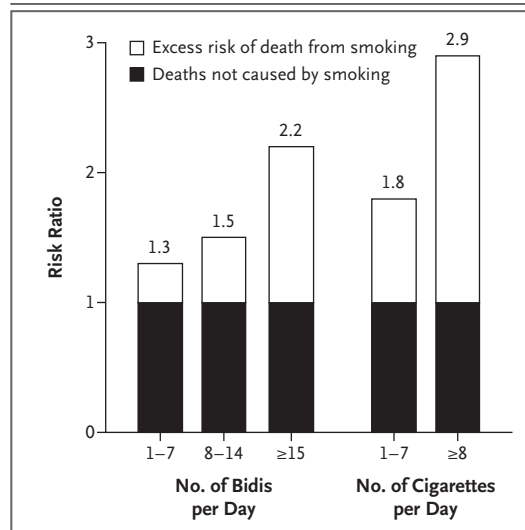


Figure 1. Risk of Death in Men between the Ages of 30 and 69 Years, According to the Type and Amount of Tobacco Smoked.

Risk ratios are for smokers as compared with nonsmokers. The mean numbers of bidis smoked per day were divided into three categories: 4.4 (1 to 7 bidis), 10.2 (8 to 14 bidis), and 23.9 (≥ 15 bidis). The mean numbers of cigarettes smoked per day were divided into two categories: 4.0 (1 to 7 cigarettes) and 13.7 (≥ 8 cigarettes). More results are available on the Web site of the Centre for Global Health Research at www.cghr.org/tobacco.

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Acinetobacter Infection

TO THE EDITOR: In their review article, Munoz-Price and Weinstein (March 20 issue)¹ state that “Acinetobacter is a gram-negative coccobacillus” and that it is “nonreactive in many biochemical tests commonly used to differentiate among gram-negative bacilli.” However, acinetobacter can be gram-variable and even gram-positive on initial Gram’s staining.^{2,3} The appearance of the bacte-

ria is highly dependent on its life-cycle phase: it is rod-shaped during the growth phase and coccobacillary during the stationary phase.^{4,5} The oxidase-negative characteristic allows one to differentiate acinetobacter from other important gram-negative bacteria such as pseudomonas and neisseria.^{4,5} This information can be useful with respect to diagnosis and time to treatment when