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## Editorial

# Smoking: A Major Roadblock in the Fight Against AIDS

Following recent advances in antiretroviral therapy, people living with HIV are expected to have near-normal life expectancy.<sup>1</sup> However, smoking is proving to be a major roadblock in achieving this goal. Where antiretroviral therapy is available, more life years are lost to smoking than to HIV.<sup>2</sup> A 35-year-old HIV-infected smoker's life expectancy is 62.6 years compared with 78.4 years in an HIV-infected nonsmoker—a loss of 15.8 life years.<sup>2</sup> On the other hand, male smokers in general population lose an average of 9.2 life years.<sup>3</sup> This suggests that smoking alone is not responsible for this effect and there are other interactions with HIV-related factors.

Smoking leads to substantial morbidity and mortality among HIV-infected individuals.<sup>4</sup> Smoking impairs T-cell immune activation and function and together with HIV infection can result in the worst immune profile.<sup>5</sup> Consequently, the risk of acquiring oral candidiasis,<sup>6</sup> pneumocystis<sup>7</sup> and bacterial pneumonia,<sup>4</sup> and tuberculosis<sup>7</sup> is enhanced in HIV-infected individuals. Smoking also puts them at increased risk of non-AIDS-related conditions such as chronic obstructive pulmonary disease, lung cancer, cardiovascular diseases, osteoporosis, and human papillomavirus infection and related cancers.<sup>8</sup> A combination of high smoking prevalence and immune dysregulation in HIV-infected people is shown to increase the risk of acute coronary syndrome attributable to smoking, which is almost double of that of HIV-negative individuals.<sup>9</sup>

In this issue, Lall and colleagues report an alarmingly high prevalence of tobacco use (68%) among HIV-infected men in India.<sup>10</sup> Their secondary analysis of a large-sample national survey provides the most representative data so far from India, home to the third largest number of HIV-infected people—2.1 million in 2013.<sup>11</sup> Their findings are consistent with those from previous studies, mostly US based, which have reported high smoking prevalence among HIV-infected people, often two to three times higher than in the general population.<sup>4</sup> The authors concluded HIV-infected smokers are likely to smoke heavily—a finding also reported in previous studies.<sup>4</sup> Being based on data from a high HIV burden country, the findings of Lall and colleagues are more worrisome than those previously reported.

There are many opportunities to offer cessation support to HIV-infected individuals due to their frequent contact with health care professional. Yet many health professionals, despite realizing its importance, remain reluctant to offer cessation support to their HIV patients.<sup>12</sup> Contrary to what one might expect, three-fourths of HIV-infected smokers are willing to quit and two-thirds have made a previous quit attempt.<sup>13</sup> However, they need intensive cessation support due to a number of factors that influence their smoking patterns, reduce likelihood to quit on their own, and increase relapse rates after quit attempts. These include high nicotine dependency, social conditions (eg, deprivation and discrimination), polysubstance use (eg, alcohol, cannabis, and cocaine), stress, psychiatric comorbidity,

morbid beliefs, and other physical symptoms.<sup>12</sup> Quitting is likely to result in significant health gains, for example, a significant reduction in the risk of a cardiovascular event within first 3 years.<sup>14</sup>

Due to an extraordinary number of HIV-infected smokers and their significantly reduced life expectancy, smoking cessation should be considered an integral part of HIV treatment plans. A broad consensus on evidence-based approaches to cessation in HIV-infected smokers is urgently needed. Policy makers and practitioners need to integrate these approaches within HIV programs and clinical practice.

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