This article reviews the research on the treatment of cigarette smoking in individuals who have comorbid mental illnesses or non-nicotinic addictions. The prevalence of smoking in mentally ill and substance-abusing populations is presented, as well as reasons for this high prevalence. The historical role of cigarettes and tobacco in mental illness and addiction is reviewed to help the reader better understand the pervasiveness of smoking in these disorders and the relative absence of intervention efforts in mental heath and addiction treatment settings. The article then discusses the several reasons for integrating smoking treatment into mental health and addiction settings. The outcome research for adult and adolescent comorbid smokers is reviewed, and barriers to treatment are discussed. The review closes with a brief discussion of models of integration and thoughts about prevention.