Smoking index is generally defined as the number of cigarette-years  
(or pack-years) smoked. This ignores the parameters such as age at  
initiation, time elapsed since cessation in case of ex-smokers,  
passive smoking and other forms of smoking such as cigars and pipes.  
The burden of smoking in a person depends on all these and much more.  
While trying to locate a comprehensive index, the only one I could  
find is the one given by Indrayan on pages 228-230 of his book Medical  
Biostatistics, Second Edition, (Chapman & Hall/CRCPress). He  
defines:  
Smoking index, S = (3 - a/15)[1/2 sq.root(sum of psubk\*nsubk\*xsubk) -  
y]  
(S=0 for S<0),  
where a= age at initiation in years; a=30 for a>30;  
psubk=adjustment for the type of smoking for xsubk years; (Suggested  
values are psubk= 1 for regular cigarette, psubk = 0.67 for filter  
cigarette, psubk= 0.15 for passive smoking, psubk= 5.0 for cigar and  
psubk= 2.5 for pipe)  
nsubk= number of cigarettes (or others) smoked per day;  
xsubk=number of years of specified smoking;  
y=number of years elapsed since quitting.  
Indrayan’s smoking index is more comprehensive than any other I could  
locate but is based on several assumptions and lack validation.  
Does anyone know or can provide a reference for more comprehensive  
index of smoking which is validated for a variety of setups?