Summary

The present work examines if the decline of cigarette smoking in Norway over the last decades fits the pattern predicted by the theory of diffusion of innovations (TDI). The dissertation consists of an introductory chapter and three papers of which I am the sole author.

Paper 1, “The role of education for current, former and never-smoking among non-western immigrants in Norway. Does the pattern fit the model of the cigarette epidemic?”, *Ethnicity & Health* (2013) 18: 190-210, examined whether the association between education and smoking status among non-western immigrants in Norway fit the pattern predicted by TDI using the Oslo Health Study and the Oslo Immigrant Health study. Higher education was associated with lower probability of current smoking among most male immigrant groups except Sri Lankans. Never having smoked was positively associated with education among Pakistani and Norwegian men. The probability of smoking among Turkish and Iranian women with secondary education was higher than in other education groups. Smoking was almost non-existent among Pakistani, Vietnamese and Sri Lankan women, regardless of education. This suggests that smoking among men has diffused from higher to lower educated. Among women, strong social norms have likely blocked uptake of smoking. Paper 2, “Tracing the cigarette epidemic: an age-period-cohort study of education, gender and smoking using a pseudo-panel approach”, *Social Science Research* (2014) [Epub ahead of print], examined if variations in daily and never smoking among groups with different levels of education fit the pattern proposed by TDI, using aggregated survey data from 1976 to 2010 and taking into account the separate effects of age, period and birth cohort (APC). Results showed that the probability of daily smoking decreased faster across cohorts among higher compared to lower educated. In contrast, the change in probability of never having smoked across cohorts was similar in the two education groups, but stronger among men compared to women. For both daily and never smoking, educational differences increased among early cohorts and levelled off among late cohorts. Paper 3, “Smoking and perceived risk of addiction: Does the relationship vary according to the pattern predicted by the Theory of Diffusion of Innovations?”, submitted to *Addiction, Research & Theory*, examined if the unequal decline in smoking over time could be related to variations in risk perception. Data consisted of three nationally representative surveys conducted in 1968, 1989 and 2007. Results indicated that the association between risk perception and smoking varied across gender, education and time. Risk perception was negatively associated with smoking among higher educated men in 1968 and 1989 and among men with lower education in 2007. Women’s smoking was less sensitive to addiction risk perception. The results were in accordance with the predictions from TDI.

The conclusion is that smoking varied consistently with gender and education over time and the decline in cigarette smoking in Norway fit the pattern predicted by TDI. Smoking among men with higher education was negatively associated with risk perceptions at an earlier point in time than other groups and the decline in smoking across cohorts was stronger among men and women with higher compared to lower education and stronger among men compared to women. In some immigrant groups, and especially among women, diffusion of smoking does not seem to have taken place. However, attention should be given to the high smoking prevalence among men from certain immigrant groups and the large potential for increased smoking among immigrant women if norms or other contextual factors change.