

# **DIFFERENTIAL PREDICTORS OF RELAPSE AS A FUNCTION OF TIME QUIT: FINDINGS FROM THE ITC 4-COUNTRY SURVEY**

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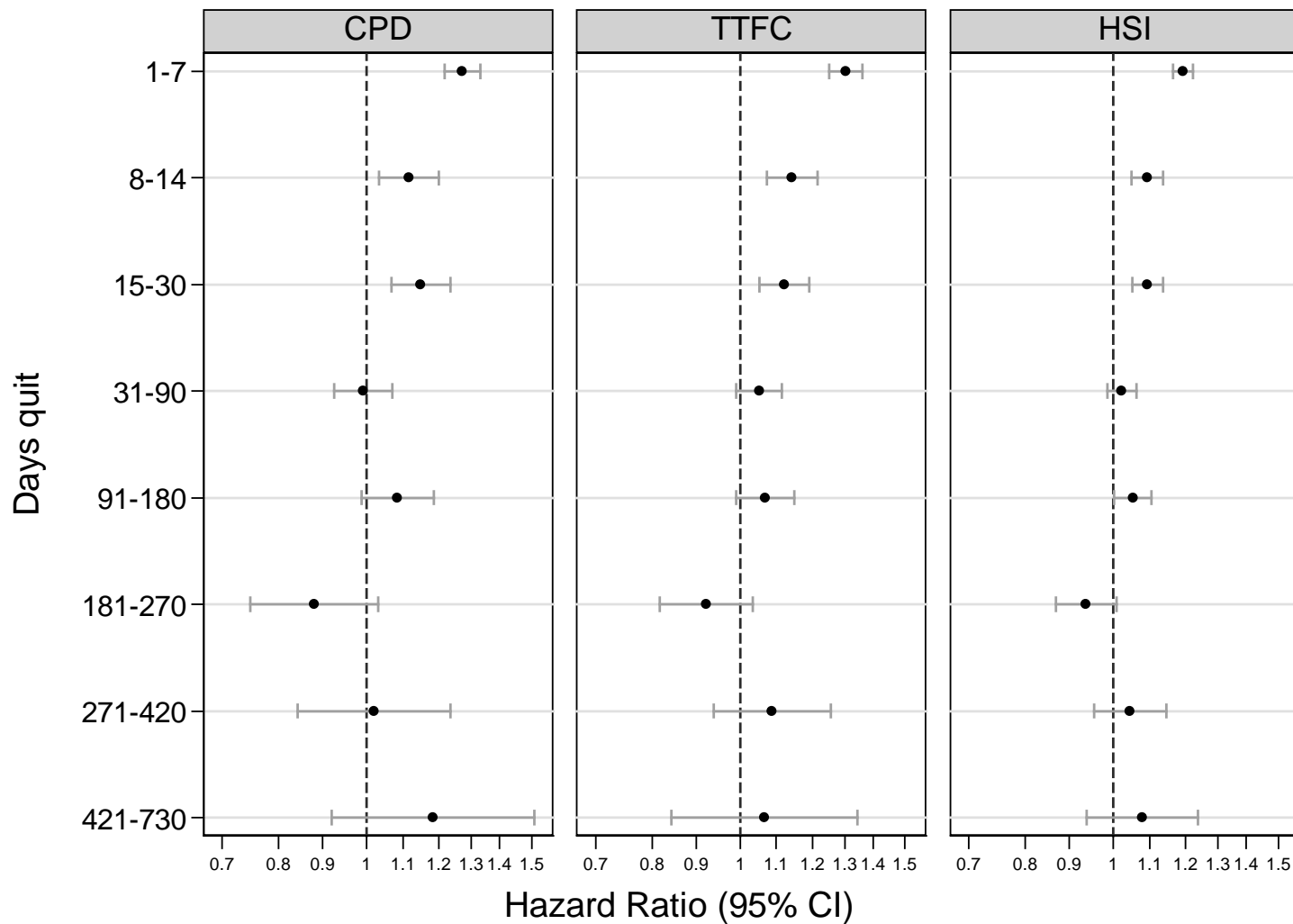
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# Background

- **A recent update of the Cochrane review concluded again that there is nothing much that prevents longer term relapse from quit attempts (Hajek et al, 2013; Cochrane Library)**
- **Are the determinants of long term maintenance different to those of short term?**
- **Yong et al (2013, NTR) found that the HSI and its elements only predict relapse in the first weeks of a quit attempt**



Hazard ratios for relapse by period quit.  
 Figure from Yong et al, 2013, NTR

# Do other predictors of relapse similarly vary by time quit?

**Method: Longitudinal data from ITC 4-country surveys**

**Measures taken in wave before quit attempt, used to predict outcome and as a function of time quit; ie, probability of relapse during a period among those still quit at the beginning of that period**

**Sample size ranges from 9017 observations on 6176 individuals for the 1-7 day analyses, to 1436/1357 for the 180-365 day analyses.**

**NB: Some variables not asked in all survey waves have smaller Ns.**

**All analyses controlled for demographics and use of stop smoking medications**

# Demographic effects

Hazard ratios for relapse as a function of period quit.

Measure	1-7 days	7-14	14-30	30-90	90-180	180-365
Age	1.06*	.99	1.05	.90*	.95	.92
Female	1.05	1.02	1.07	.95	1.02	1.09
Educ	.91**	.97	1.04	1.03	.93	.94
Income	.97*	.95*	.99	.95*	.98	.97

# Measures of difficulty/ease

Hazard ratios for relapse as a function of period quit.

Measure	1-7 days	7-14	14-30	30-90	90-180	180-365
Hard to quit completely	1.25***	1.09*	1.09*	1.04	.96	1.04
Heaviness of Smoking Index	1.24***	1.13***	1.09***	1.03	.98	1.05
# quit attempts previous year vs none	P=.006	P=.107	P=.001	P=.002	P=.059	P=.185
One attempt	.82**	.99	1.08	1.29*	1.27	1.25
More than one	1.04	1.20	1.44***	1.37**	1.28*	1.32
Self-efficacy to quit	.83***	.89***	.92**	.93*	1.04	1.05

# Motivators Pro and Con

Hazard ratios for relapse as a function of period quit.

Measure	1-7 days	7-14	14-30	30-90	90-180	180-365
Wanting to quit (4)	.98	1.19**	1.12*	1.22***	.99	1.15
Intention to quit (4)	.92**	.99	1.05	1.06	1.03	1.09
Premature butting out (4)	.98	1.07	1.19*	1.23**	1.12	1.21
Scale – health+lifestyle outcome	1.05	1.23**	1.12	1.15*	1.01	1.11
No of 5 closest friends smokers	1.03	1.01	1.06*	1.02	1.07*	1.10*
Enjoy smoking (5)	1.10***	1.07*	1.03	.97	1.01	.96
Important part of life (5)	1.12***	1.07*	1.03	1.00	1.01	.97

# Use of medications

Hazard ratios for relapse as a function of period quit.

Measure	1-7 days	7-14	14-30	30-90	90-180	180-365
Use of stop-smoking meds	.73***	.76***	1.09	1.15	1.46***	1.27*

Stop smoking medications appear to be very protective for the first two weeks, but beyond that rates of relapse are at least as high up to 3 months, when they become higher



# What does it all mean?

- **The determinants of relapse clearly vary over time**
- **Some things that may help people stay quit early lose their protective power**
  - ? Increased relapse for Meds due to allowing some who are still very dependent to survive while using
- **Others perhaps are short term barriers only**
- **Strategies to prevent relapse longer-term need to take into account how its determinants may change over time**

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