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# Smoking habit of TB patients in Japan



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- **Objectives**

- To observe the smoking habits of TB patients and its change in the course of treatment.

- **Study population**

- 1,366 newly registered TB patients in 28 HCs in 11 prefectures in Japan, during 2010 and 2011, compared with the Nationwide sampling survey on general population in 2010

- **Methods**

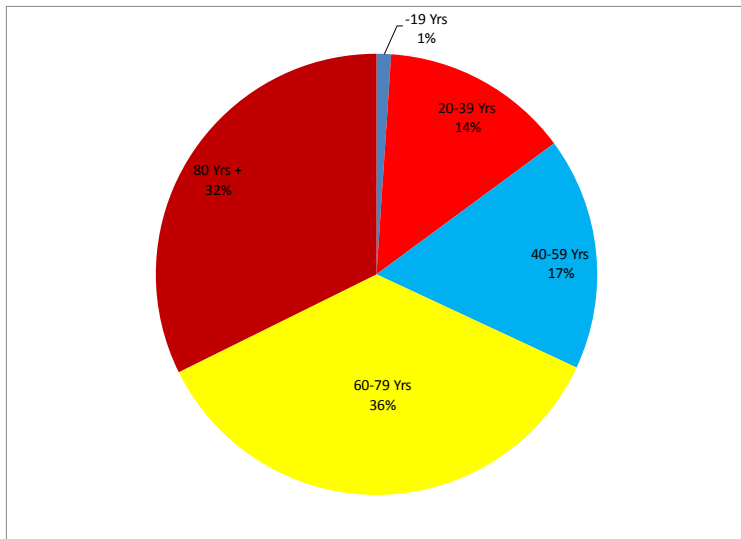
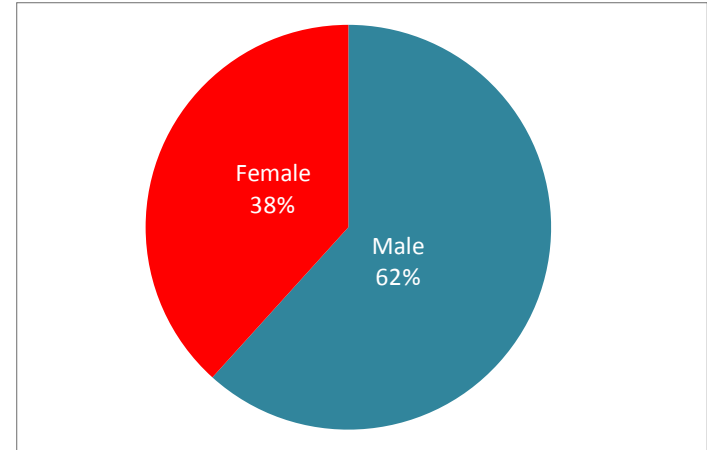
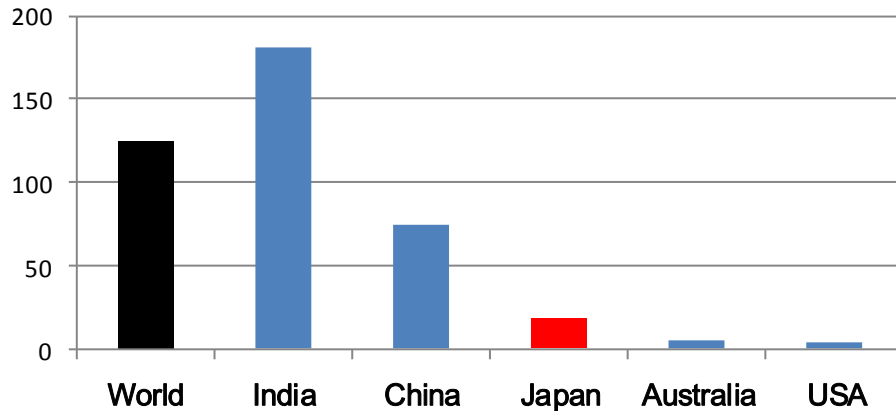
- Interview by PHN soon after registration, and follow up until the completion of treatment.



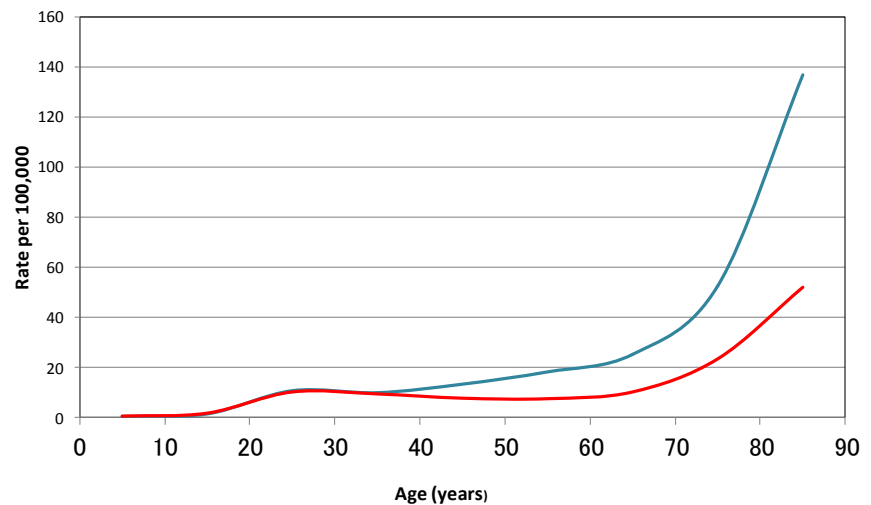
# Tuberculosis in Japan



### Incidence, WHO Estimate 2011



### Age-specific Case Rate (Japan, 2011)

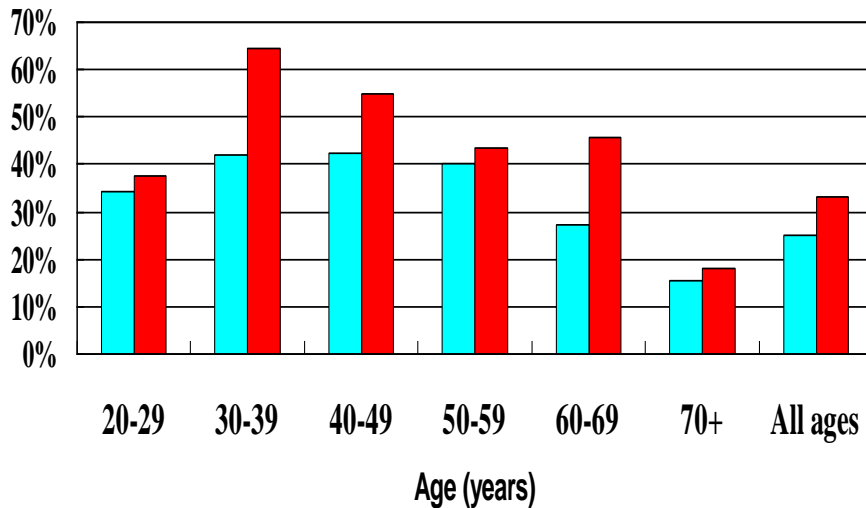


# Prevalence of Smoking

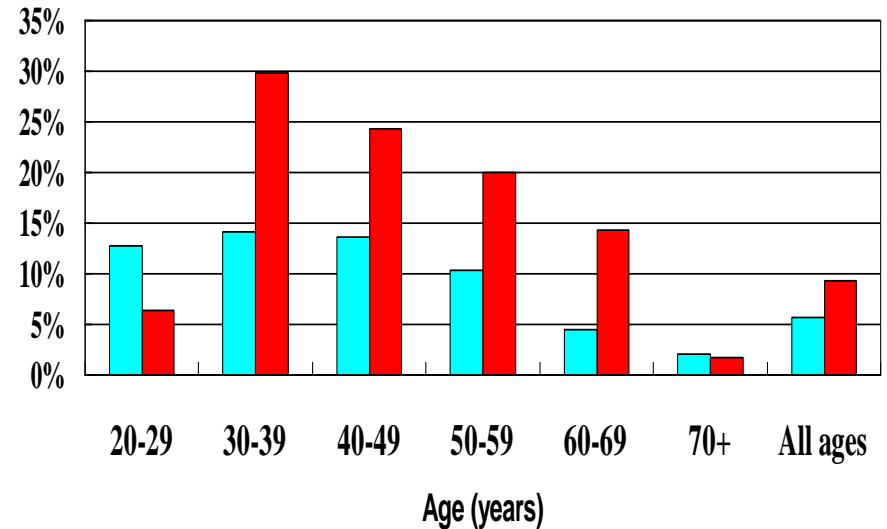


*Patients: 2010-2011, General: 2010 survey*

Males



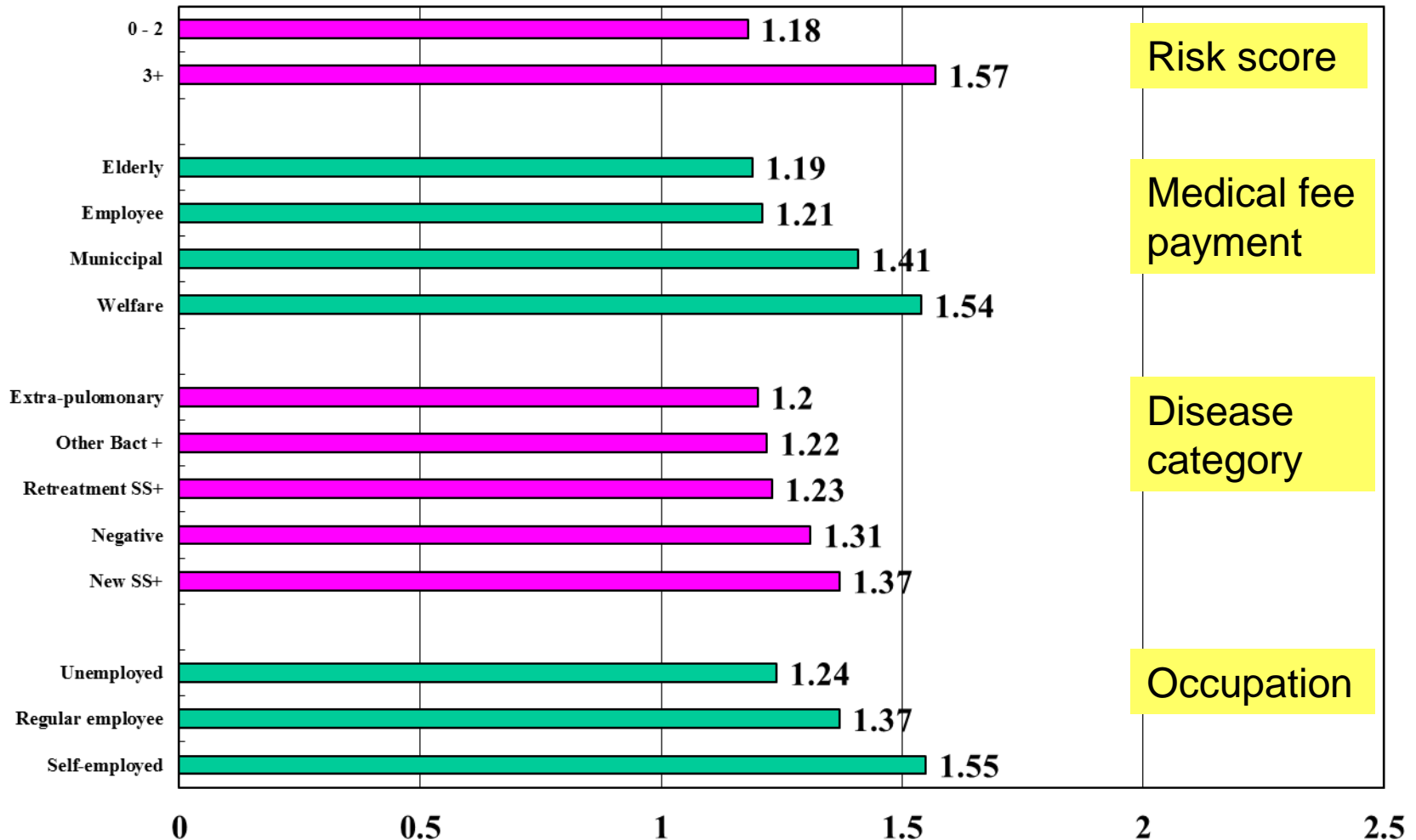
Females



Rates for "TB of All ages are age-adjusted for General population. Standardized Prevalence Ratio to General populations is **1.29** (95%CI, 1.44 – 1.11) for males, and **1.57** (1.89 – 1.14) for females.

# Smoking Prevalence Ratios by Patient's Characteristics

(Males, Ratio to Expected value based on the age-adjusted smoking rate of General population; *Patients: 2010-2011, General: 2010 survey*)

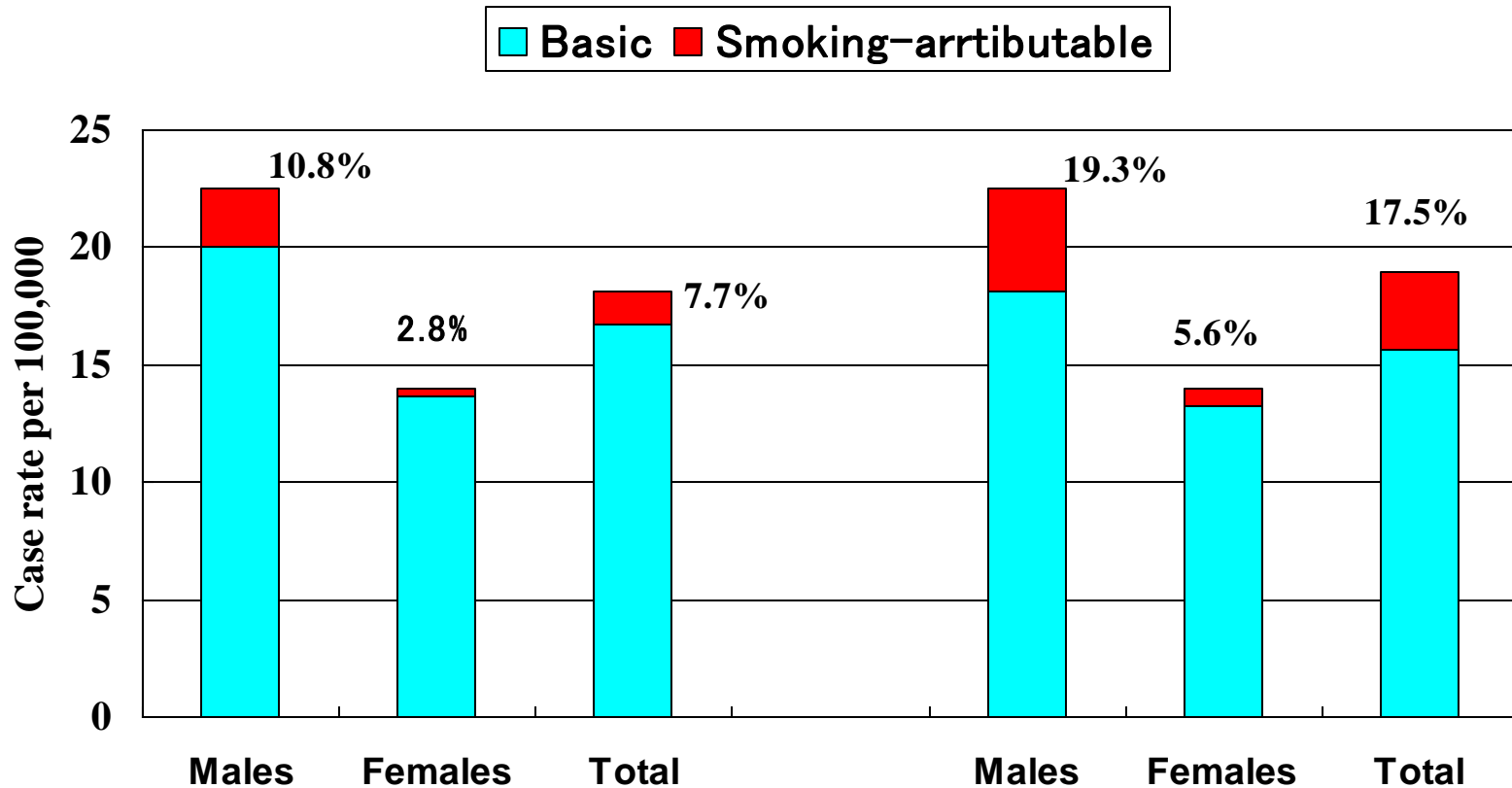


For categories with >50 subjects only.



# Attributable Risk of Smoking to TB

(Japan, Based on TB rates of 2011, Smoking rates of 2010)



**1.5**

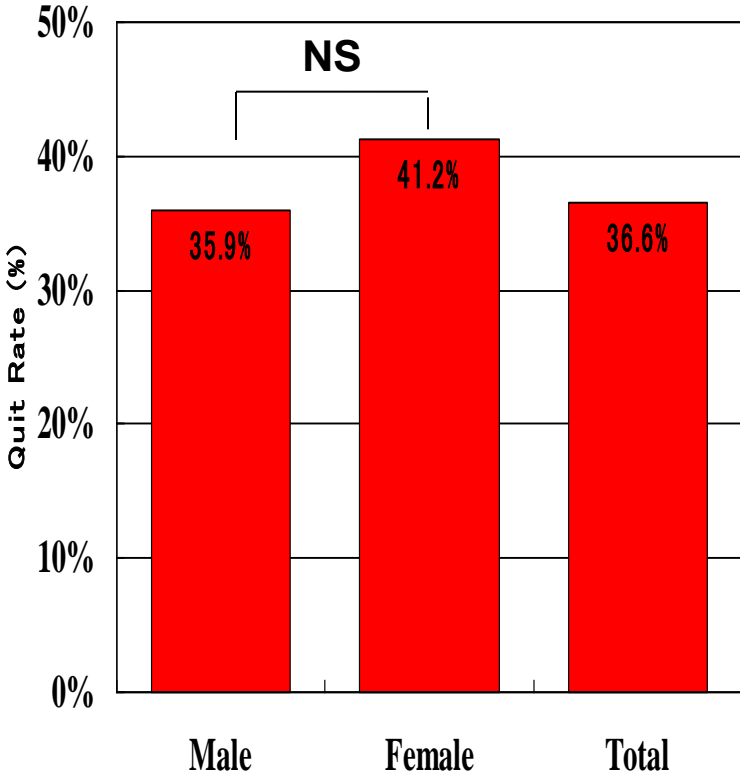
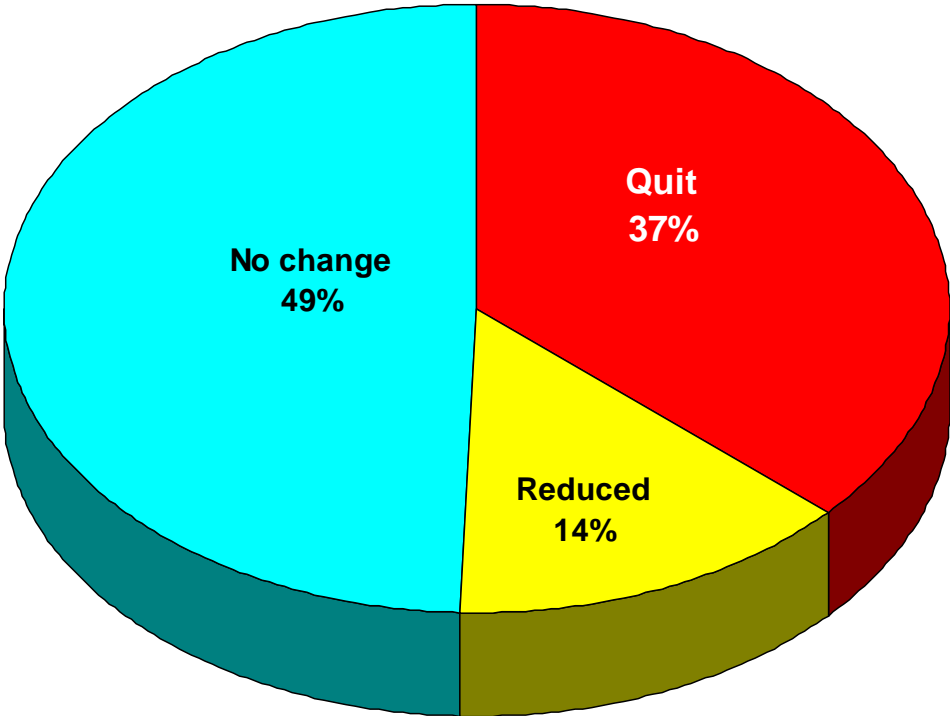
**Relative risk**

**2.0**

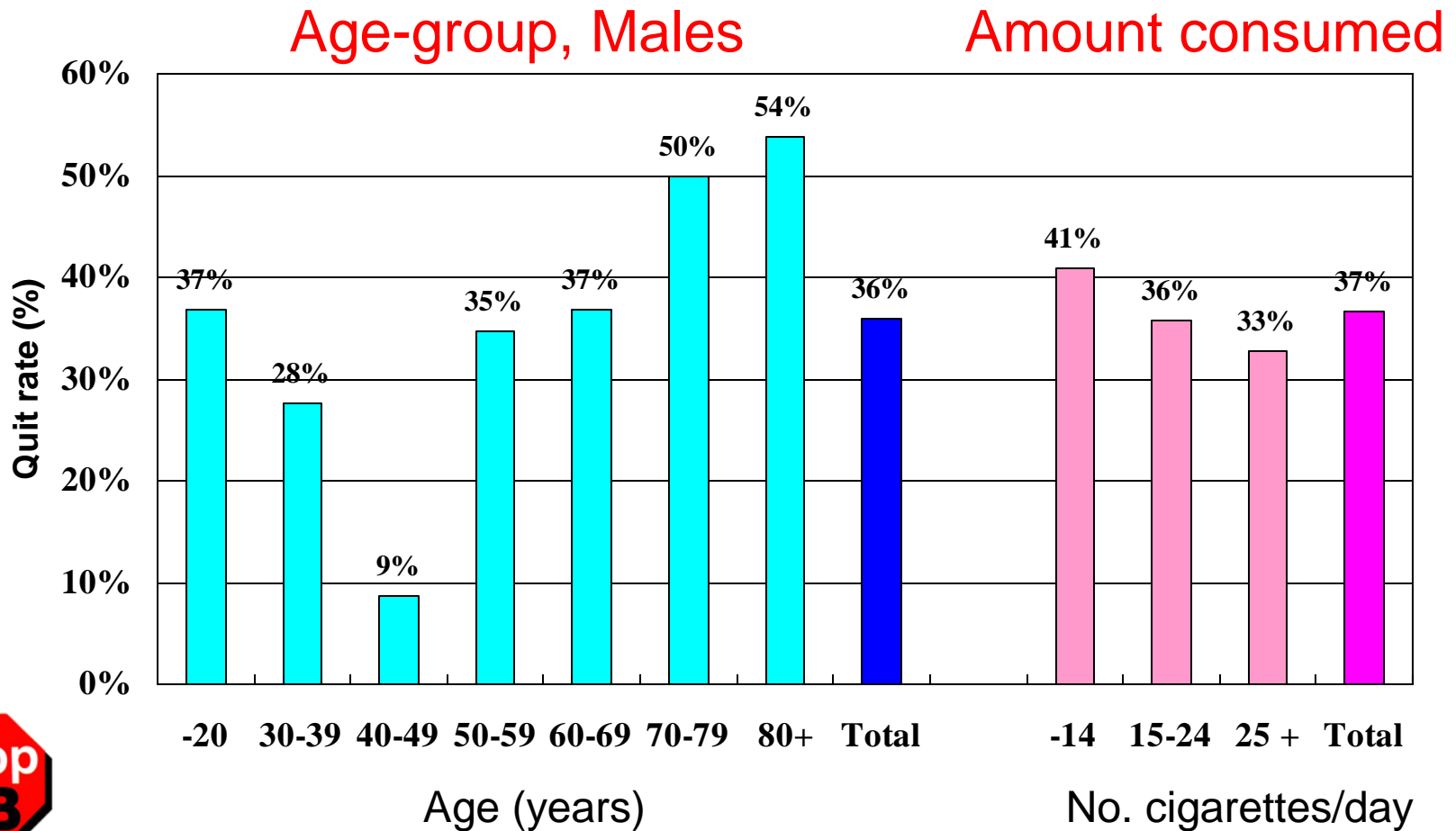
Also, 24% and 42% of the male-female gap in case rate are attributed to smoking, assuming RR=1.5, and RR=2.0, respectively.



# Change in smoking habit after TB Treatment



# Quit Rate by Patient's Characteristics (1)



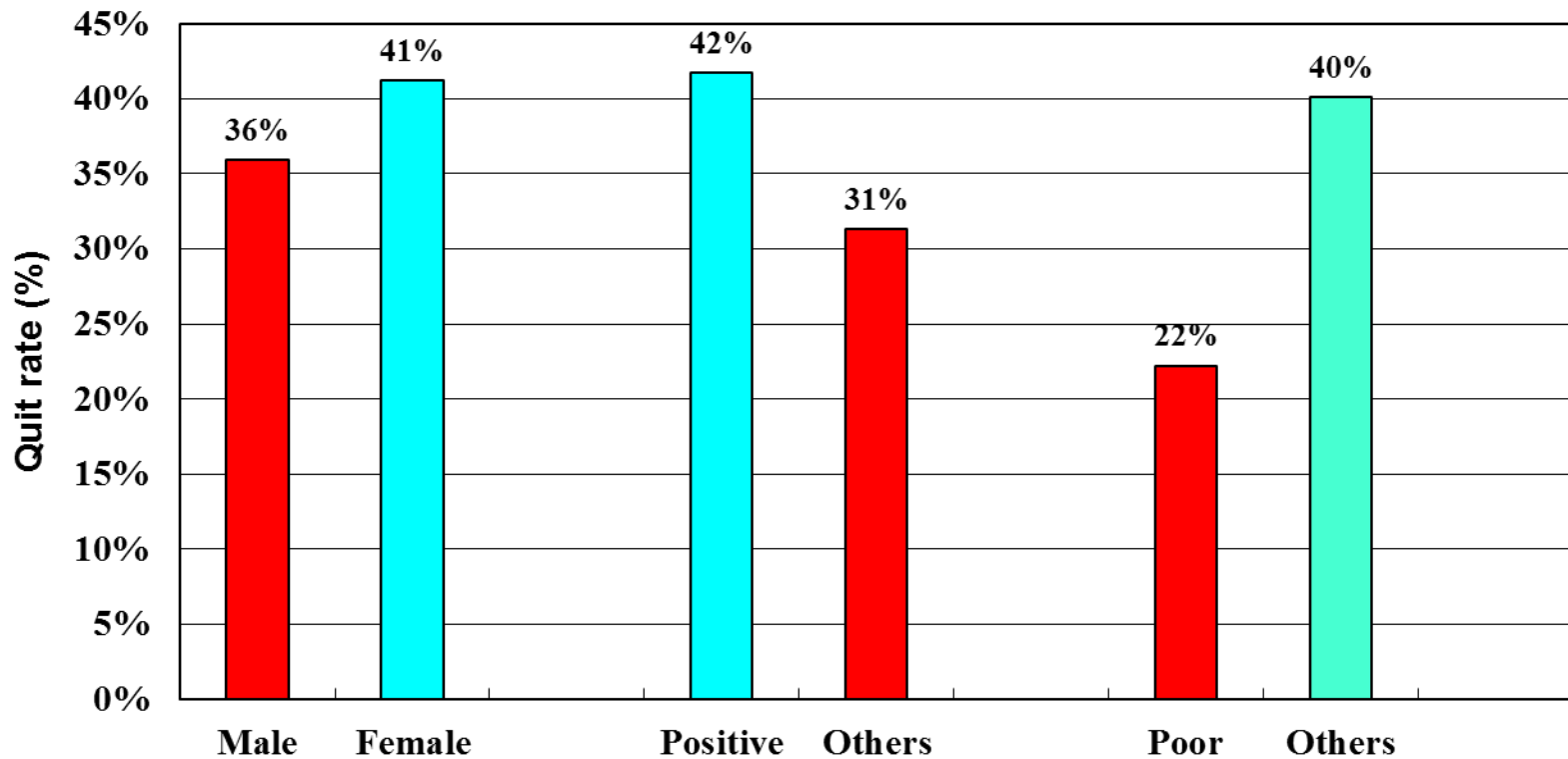


# Quit Rate by Patient's Characteristics (2)

Sex

Disease

SE



SE "Poor" includes those under **social welfare** or **part-time workers/day laborers**



# Factors related to quitting

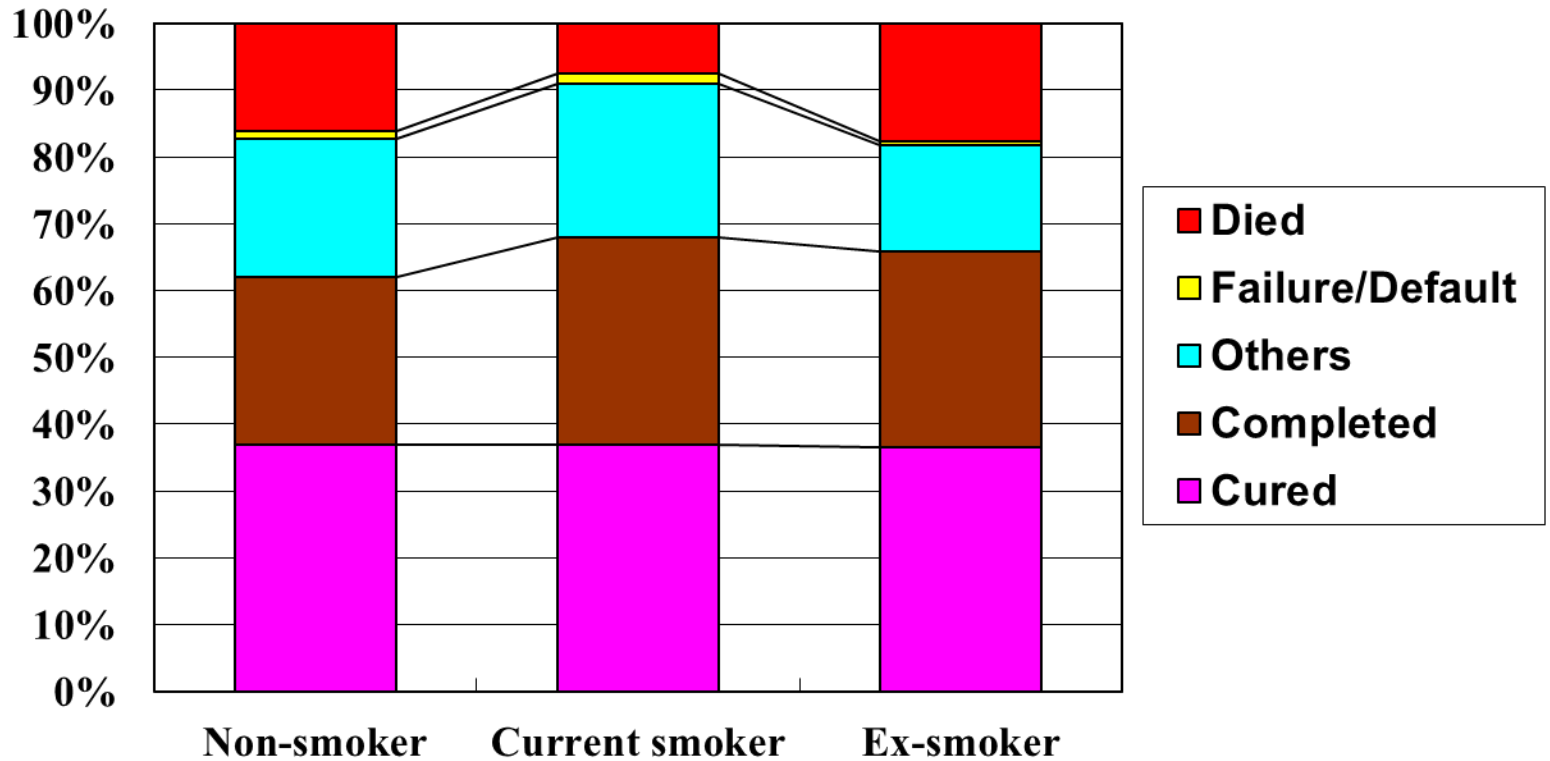
*(Logistic regression analysis)*

	OR	95% CI	p
Age (10 years)	1.234	1.053, 1.445	0.009
Sex	1.541	0.678, 3.501	0.302
Amount smoked	0.875	0.589, 1.299	0.508
Poverty*	0.429	0.186, 0.988	0.047
Smear positive	1.583	0.903, 2.774	0.109
Risk factor**	0.902	0.477, 1.703	0.750

\* Being under social welfare or with part-time employment or day laborer.

\*\* Having 3 or more factors as defined in the TB case inventory for predicting risk of defaulting.

# Treatment outcomes by smoking habit pretreatment



# Conclusion



- TB patients' smoking as dual risk; a risk factor predisposing them to TB, & a socio-economical risk behavior linked to TB
- A large part of patients still do not quit smoking despite the physical and psychological sufferings from TB.
- Education and support to patients by clinical / public health providers are not effective enough, which is a heavy challenge to us.

**Thanks for your attention!**  
**Any questions?**

