

# Risk Factors of Non-Smoking Students Grade 7-12 Susceptible to Smoking Cigarette in Indonesia Using Data Global Youth Tobacco Survey 2019

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## Abstract

The number of students who smoke cigarettes continues increase, in line with achievement industrial target of tobacco products. The aim of this study is to determine factors that cause students who do not smoke susceptible to smoking (SS) in the future. This information will direct tobacco control prevention programs.

A cross-sectional survey data from 148 schools and 379 classrooms, total 9922 eligible students in grades 7-12. Simple and multiple logistic regression analyses were conducted to factor associated with SS among never smoking students. Descriptive statistics, and adjusted odds ratios with 95% confidence intervals were reported.

There were 5863 students who do not smoke of whom 454 SS; girls 78.25% and 58% were grade 7-9. The students who; were boys (OR=1.55,  $p<0.001$ ), thought cigarettes not harmful (OR=3.79,  $p<0.001$ ), current use e-cigarettes (OR=3.62,  $p<0.001$ ), current consumes shisha (OR=2.92,  $p<0.001$ ), ever got free cigarette/ voucher (OR=2.46,  $p<0.001$ ), thought safe to smoke only one or two years and quit (OR=2.12,  $p<0.001$ ), have item of tobacco product (OR=1.8,  $p<0.001$ ), exposed cigarette advertisement/ promotion at music concert (OR=1.72,  $p<0.001$ ), thought smoking helps people feel more comfortable (OR=1.66,  $p<0.001$ ), thought Second Hand Smoke (SHS) are not harmful (OR=1.5,  $p<0.001$ ), exposed SHS in public places (OR=1.46,  $p<0.001$ ), exposed to cigarettes advertisement in internet/social media (OR=1.3,  $p<0.015$ ).

Factors that influence students not to smoke susceptible to smoking cigarettes are students who; lack of knowledge the dangers of tobacco consumption, currently use e-cigarettes, currently consumes shisha, exposed of cigarette advertising and promotion, and exposed to SHS in public places.

**Keywords:** susceptible to smoking, adolescent, students, Indonesia

## Biographies

**Tati Suryati** since March 2022 as a senior researcher at National Research and Innovation Agency. In 1988 she officially as a civil servant at the MoH, with experience working in hospitals and staff city health office. Since 1993 - 2021 as an NIHRD researcher with expertise in health policy and services. Inaugurated as Doctor in Public Health from University of Indonesia in 2013. Her contribution to many research in field of health systems, health services, tobacco control, health financing and burden of disease.

**Debri Rizki Faisal** is currently employed at the National Research and Innovation Agency of Indonesia as an Assistant researcher from 2021 until now. He graduated with a Master of Epidemiology from Universitas Indonesia in 2019. His research focuses on public health and

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**Endang Indriasih** is currently a researcher at the National Research and Innovation Agency. From 2005-2021 she worked at the National Institute of Health Research and Development, Indonesian Ministry of Health as researcher. She received a Doctor in Public Health in 2018 at the Indonesia University. Her main research interests are in, health Services, health information system, coding cause of death.

**Ingan Ukur Tarigan** starting join with National Research and Innovation Agency, from March 2022. Previously Ingan work in National Institute of Health Research and Development, Ministry of Health Indonesia (1995- February 2022) as senior researcher. She studied at Indonesia University and got her Doctor of Public Health in 2014. Ingan considerable in many research related to health services, health systems, epidemiology, tobacco control and maternal and child.

**Made Ayu Lely Suratni** is currently a researcher at the National Research and Innovation Agency. From 1987-1989 she worked as a dentist at East Flores Hospital. From 1989-1996 she worked as a dentist at Public Health Centre-Gianyar, Bali. From 1997-2021 she worked as researcher at NIHRD. She received a Magister of Health in 2003 at the Gadjah Mada University. Her main research interests are in Public Health, Epidemiology and Biostatistics.