

## Centre For Health Economics Seminar Series 2019

### Cigarette Demand in Indonesia with Controls for Cigarette Quality

Presenter: Dr Susan Olivia  
Date: Wednesday 27 March 2019  
Time: 12.00pm - 1.00pm  
Venue: Room H.921 Caulfield campus



#### Abstract

Most studies of cigarette demand ignore quality variation. In general, consumers may respond to price rises by reducing quantity consumed, but also by downgrading the quality of what they consume. If each type of response is not allowed for, what is estimated as a price elasticity of quantity demand will combine the effects of quantity and quality adjustments. We distinguish between 15 brands of cigarettes in Indonesia, where prices of the dearest brands are over double those of the cheapest. Using Indonesian Family Life Survey data, we estimate individual level demand for cigarettes, comparing estimated own-price elasticities when brand-level controls for quality are included and when they are excluded (as in most prior studies). The own price elasticity of quantity demand for cigarettes purchased is  $-0.82$  if brand effects are ignored, but is just  $-0.54$  once the brand effects are used. There is a similar gap for the price elasticities of cigarettes smoked. We use these results to simulate a 10% rise in the excise tax, and find that the effect of the tax hike in reducing the number of cigarettes smoked would be overstated by 56% if the brand-level controls for quality choice are not used.

#### Presenter

Susan is a Senior Lecturer in Economics at the University of Waikato, New Zealand. Her teaching and research interests are in development economics, applied microeconometrics, and the intersection of econometrics and machine learning. Much of her research uses large-scale administrative and survey data as well as geographic data, including satellite data. Prior to joining Waikato, Susan was the Australian Research Council Discovery Early Career Award Research Fellow in the Econometrics and Business Statistics Department at Monash University. She has previously taught at the University of Melbourne and has worked as a consultant to the World Bank. Her recent and ongoing projects include an impact evaluation of community-led sanitation program in Indonesia, modelling economic activity in Indonesia from space, implications of quality, quantity and price for taxing unhealthy items, crowd-sourced price data collection and the socio-economic impacts of floods on Jakarta. She holds a PhD from the University of California, Davis.

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