

What is the best way to assess drug prices using self-report data?

RASMUS MUNKSGAARD,¹ ADAM R. WINSTOCK,^{2,3} MONICA J. BARRATT,^{4,5} CHENEAL PULJEVIC,^{6,7} EMMA DAVIES,⁸ JASON A. FERRIS⁶

¹Aalborg University, Department of Sociology and Social Work, Aalborg, Denmark, ²Institute of Epidemiology and Health Care, University College London, ³Global Drug Survey, London, UK, ⁴Social and Global Studies Centre and Digital Ethnography Research Centre, RMIT University, Melbourne, Victoria, Australia, ⁵National Drug and Alcohol Research Centre, UNSW Sydney, NSW, Australia, ⁶Centre for Health Services Research, The University of Queensland, Queensland, Australia, ⁷School of Public Health, The University of Queensland, Queensland, Australia ⁸The Centre for Psychological Research, Oxford Brookes University, UK.

Presenter's email: c.puljevic@uq.edu.au

Introduction and Aims: *The price of a substance is a crucial variable in quantitative research on drug markets. Yet, it is not uncommon that research observes varying prices and quantity discounts, and a survey of the literature suggests various ways of measuring drug prices. In this paper, we assess different ways in which to measure drug prices and discuss best practices for using self-report data to assess drug prices.*

Design and Methods: *We use self-report data on drug transactions from Germany collected by the Global Drug Survey and exploit that GDS posed questions differently in individual years. We apply fixed regression nesting observations in regions to adjust for variation in enforcement and control for correlates of purchase behaviour (drug use, gender, education, urbanicity and age). We replicate our analyses across MDMA (powder and pills), cannabis and cocaine.*

Results: *We find significant variation in reported quantities depending on how questions are phrased. First, we find that "last purchases" are larger quantities than "usual purchases". Second, we find that "last purchase" are priced lower at the 1-gram level but exhibit less steep quantity discounts. Third, we find that questions about "the usual price of a gram" are subject to quantity discounts. Finally, we assess whether different questions yield different prices at the 1-gram level.*

Discussions and Conclusions: *As traditional sources of data on drug prices are growing less accessible there is an increased need for new consistent measures such as online self-report surveys. We find that there are significant and substantial variation in prices, quantities and quantity discounts contingent on how questions are phrased in self-report surveys, even when measured within the same year. We suggest that for purposes of statistical inference this does not necessarily pose a problem, but that when used for estimating temporal change in drug prices there is a risk of biasing results.*

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