

Nanos Response

Commentary by Michael Law on Nanos Study puts spotlight on the bias and flaw in Law's own research which attempts to estimate drug affordability issues in Canada.

Key Takeaways

On March 1, 2018 Michael Law and Ashra Kolhatkar published a commentary on the Nanos Study which was conducted in 2017 and sponsored by the Canadian Life and Health Insurance Association and Innovative Medicines Canada. In their critique they cite their own published study.

Their commentary is incorrect in term of the determinants of research reliability and puts a spotlight on their own biased question asked which effectively primed Canadians to report they did not fill a prescription because of cost.

- 1. Law's comment on the number of survey participants comparing their own published study and the Nanos study.** The number of interviews conducted is not relevant to the reliability of research. Larger data sets do allow for greater flexibility in the analysis of sub samples and target populations but should not be conflated with reliability. Both large and smaller surveys can be accurate or flawed, for a number of reasons, but the sample size is not a primary driver of reliability. In my experience over the past 30 years, question wording is among the greatest contributors to research reliability.
- 2. Law's comment on response rates.** The latest research completed by the independent Pew Trust suggests that both higher and lower response rates in studies can provide accurate data. ¹To cite the response rate of a survey as the basis for the reliability of one study over another is misplaced.
- 3. Law's questioning the Nanos pilot process.** The fact that the questionnaire was designed by Nanos and not changed from pilot to implementation speaks to the quality of the questionnaire. Because the Nanos questionnaire used an open-ended question to allow Canadians to articulate reasons for behavior, there was less of a likelihood for questionnaire design issues because there was no priming of respondents with content. If Law in his study redesigned his questions on a number of occasions, as he claims, it puts a spotlight in terms reporting what changes he made, why they were made, and what different types of information was presented to respondents.
- 4. Comparing the Law and Nanos questions.**

Law Questions:

During the last 12 months, was there a time when you did not fill or collect a prescription for your medicine, or you skipped doses of your medicine because of the cost?

¹ <http://www.pewresearch.org/2017/05/15/what-low-response-rates-mean-for-telephone-surveys/>

In the last 12 months, was there a time when you reduced the dosage of your medication or delayed filling your prescription, because of the cost?

Nanos Question

What was the one reason for not filling/stopping early/taking a smaller dose of your personal prescription on any occasion? [OPEN-ENDED]

Readers should note that the Law question is flawed in terms of not being balanced. First, a binary yes/no answer should be a flag as a potentially leading question. The question should have posed “was cost a factor or not a factor in not filling a prescription...”. The lack of balance could be interpreted as leading respondents. More importantly, it can be argued that the introduction of cost in the question as the only response element could noticeably lead respondents.

Conversely, the Nanos question is open-ended allowing Canadians to express why they did not fill a prescription in their own words, without priming them on cost or any other factors and without introducing any additional information.

As an example, Law’s approach can be compared to a health practitioner with an interest in sore elbows to ask a patient only, “Does your elbow hurt?” which could prime some patients to respond, “Come to think of it, I have a pain in my elbow.” This approach is in contrast with Nanos’ approach which can be compared to a health practitioner asking, “Where is the pain”, which would allow the patient to articulate where the pain is as opposed to answering about the pain in their elbow as directed (like Law) by the health practitioner.

To put this into context from a measurement perspective, if Law’s leading question influenced at least one in 20 respondents that could yield a minimum over-reporting of five percentage points in his estimate on the influence of cost.

5. **The connection between estimates and reality.** It is fair for any researcher to examine the estimates of a study. In an ideal world, the estimates would align with real behavior. When a research organization conducts a poll during an election, it produces an estimate and then once the election occurs, the estimate is proven to be reliable or not. Research conducted by Nanos on the day before voting day for independent news organizations during federal elections have proven to be reliable, without exception (reliability being defined as within the margin of error of the survey). Nanos estimates, such as the 2006 Federal Election, have been dead accurate.²

The Law estimate using the question which some could consider leading and could have primed respondents to report cost as a factor, estimates that 1.69 million people across Canada could not afford one or more of their prescriptions over the past 12 months. To put this into context, there are 338 Federal Ridings in Canada. Using the Law estimate of 1.69 million would suggest that there could be 5,000 Canadians unable to afford medicines in each riding. The phone lines of Members of Parliament should be deluged with calls from Canadians needing help, so they can take the medicines they need. Likewise, the estimated 1.69 million Canadians would also effectively represent a crisis in emergency rooms and healthcare outcomes of epidemic proportions. According to Health Canada, and their trend analysis of the health of Canadians from a healthy living and

² <http://www.nanos.co/wp-content/uploads/2017/07/2015-Nanos-Election-Track-Record.pdf>

chronic disease perspective “In general, Canada is a healthy nation. Over the past several decades the overall mortality rate and life expectancy have improved considerably.”³

In considering estimates of Canadians not taking medicines, one should reconcile estimates with the actual health outcomes of Canadians as measured by Health Canada. The Law estimate suggests a health crisis driven by Canadians unable to afford medicines they are prescribed. The Nanos estimates suggest that cost is one factor but not as prevalent as Law suggests.

The key question to ask is what is the better question to reliably estimate why prescriptions are not filled and to see how important or unimportant cost is: Telling people cost is a factor in not filling a prescription and asking to people to answer as Law did in his research OR the Nanos method which was plainly just asking why they did not fill a prescription and allow Canadians to answer as they wished?

Nik Nanos is the Chairman of Nanos Research and was the senior research on the study. He is considered among Canada's top public opinion researchers. In addition to leading the team at Nanos Research he is a research associate professor at the State University of New York at Buffalo and a Global Fellow at the Woodrow Wilson International Centre for Scholars in Washington DC.

³ <https://www.canada.ca/en/public-health/services/publications/healthy-living/how-healthy-canadians.html>