Direct-to-Consumer Advertising and Online Search

Discussion by
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Research Questions

- Does exposure to DTCA drives consumers to search online?
- What kind of information are consumers seeking?
- Does it vary by drug type and demographics?

Why do we care?

Two sides of DTCA debate:

DTCA IS BAD

- Consumers should not go shopping for prescriptions
- No incentive for advertisers to provide balanced information of risks and benefits. Ads tend to emphasize benefits more than risks

DTCA IS GOOD

- Information about the existence of the drug
- Highlighting symptoms might lead affected consumers to seek treatment.

If DTCA is biased, then having people seek further information online is good

Nov 17, 2015: AMA comes out with a statement encouraging a ban on DTCA

Discussion: Causality?

- The paper finds evidence that DTCA is associated with internet search.
- Authors are cautious not to explicitly label anything as causal, but the implication is there.
- The reader is left to wonder whether the results represent monthly marginal causal advertising-induced search lift.

Discussion: Causality?

- In what follows I will try to be helpful in giving some suggestions for how to set up a discussion to strengthen the causal argument

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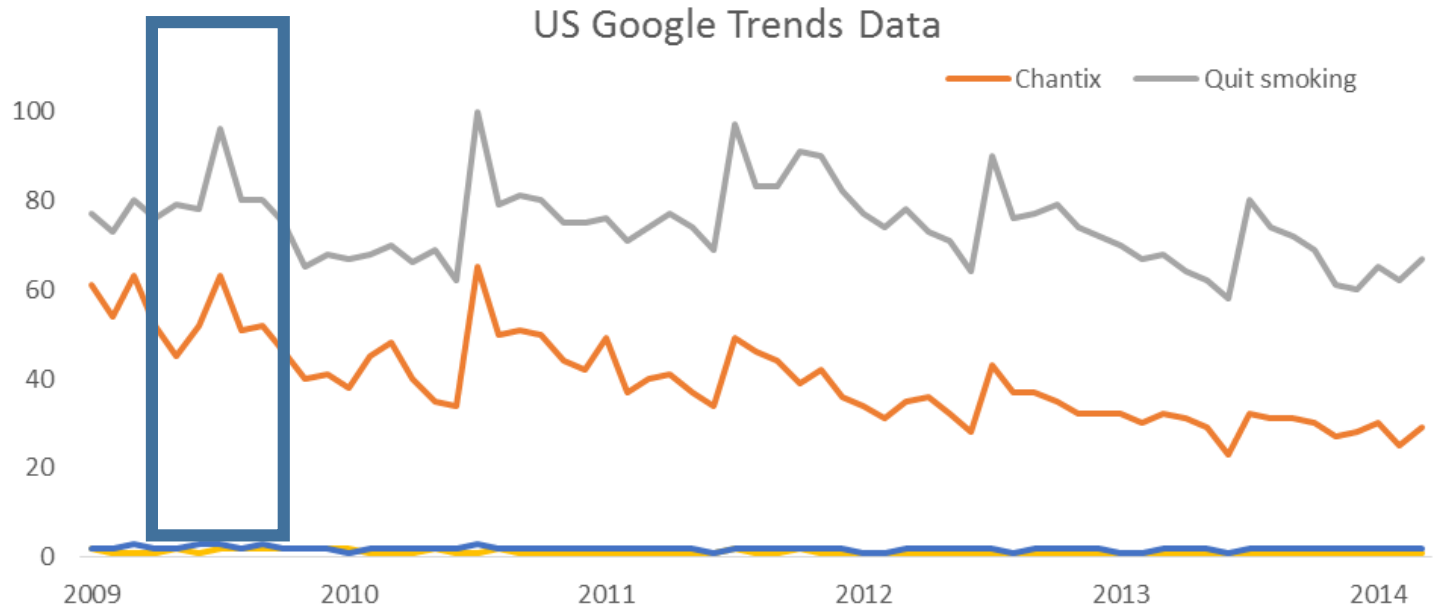
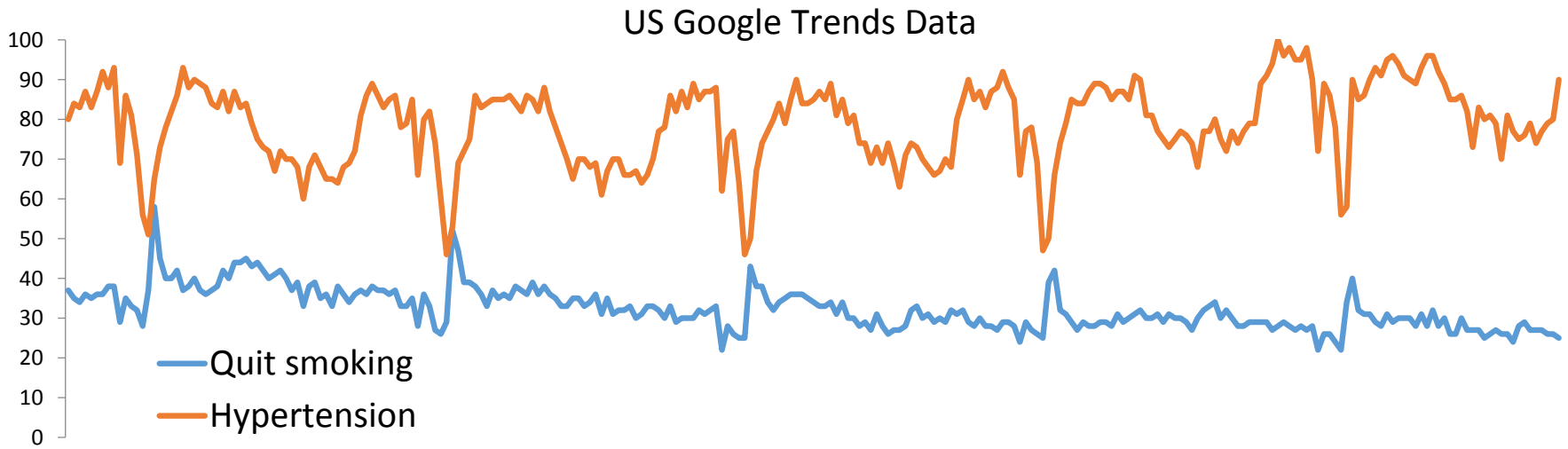


- Chantix spends 72 million during that particular month on advertising, but it is also during the time when people are setting their New Year's resolutions to quit smoking
  - All peaks correspond to January
- Fortunately, that is observed (month/category fixed effects)

Discussion: Causality?

- Can we think about scenarios with other unobservables that might be confounding?
  - Add category or drug specific time fixed effects (fixed effects for category*month interactions)
  - Market fixed effects would be nice, presumably that data is available

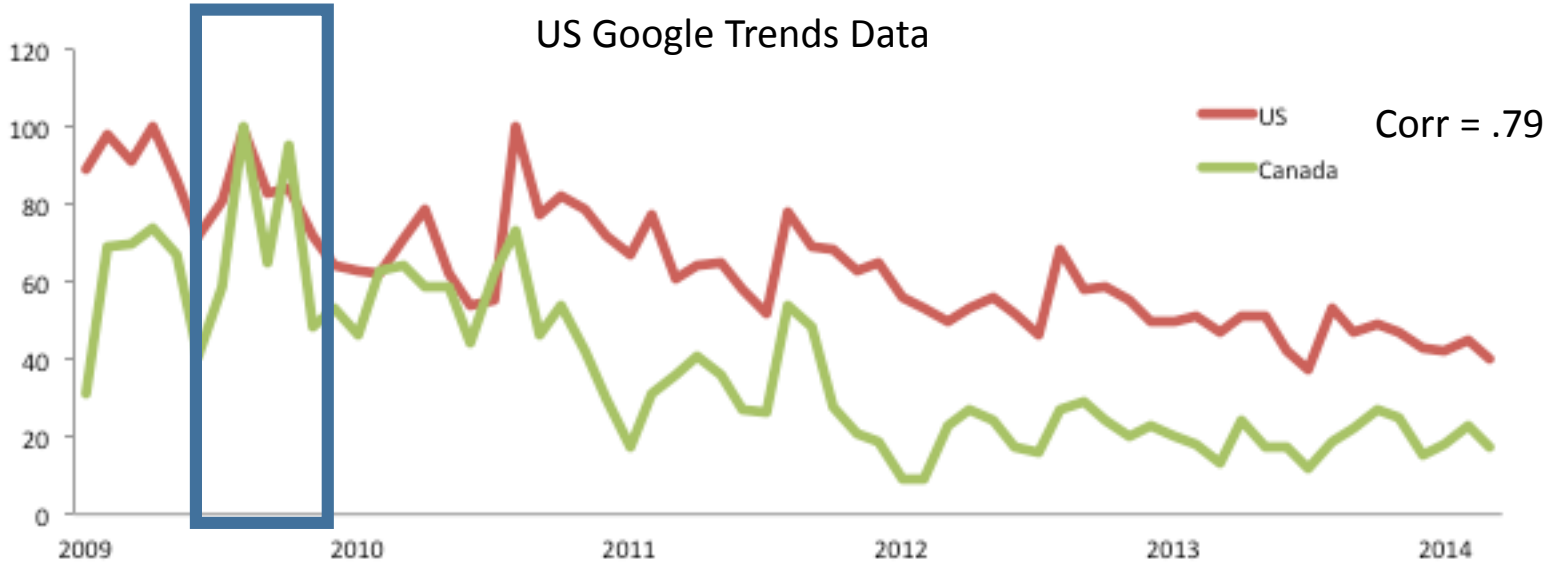


Discussion: Causality?

- Remaining endogeneity?
- Skeptical that advertisers have information required to determine what the optimal ad placement is (Lewis and Rao, 2015 QJE).
- Even if advertising agencies knew what would be the optimal ad placement, there are severe contractual and institutional challenges in the industry that complicate seamless optimization.
- This does not reject the possibility of endogeneity, but strongly suggests that we should discount the idea that advertisers are making optimal decisions.

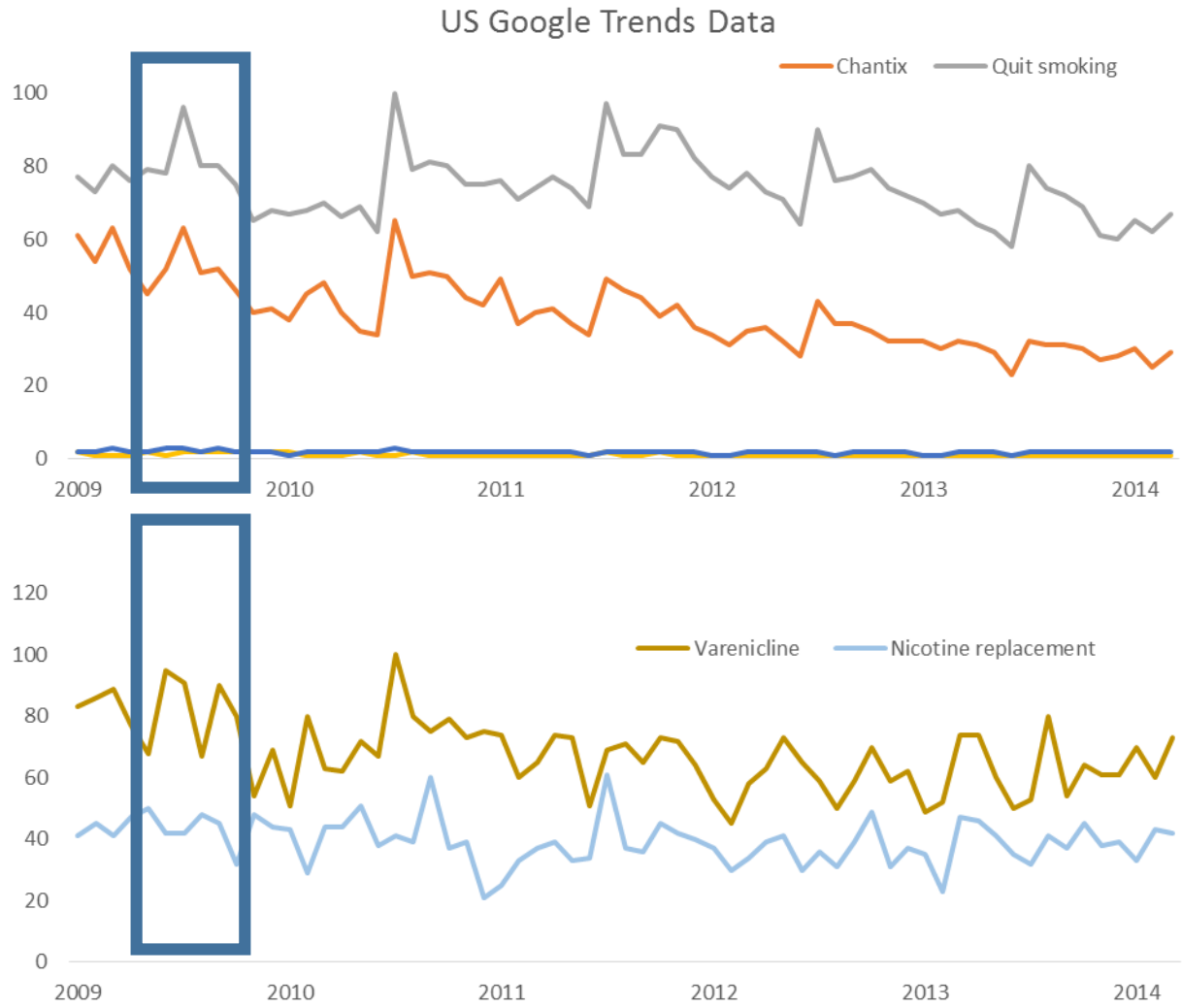
Diff-in-Diff Motivation

- Suggestion to add more model free evidence.
- Diff-in-Diff set up: using search in Canada (or some other similar market that does not allow DTCA) to proxy for what search would be in the absence of DTCA.



Diff-in-Diff motivation?

- Or, potentially juxtaposing search for advertised vs non advertised drugs in the same therapeutic category

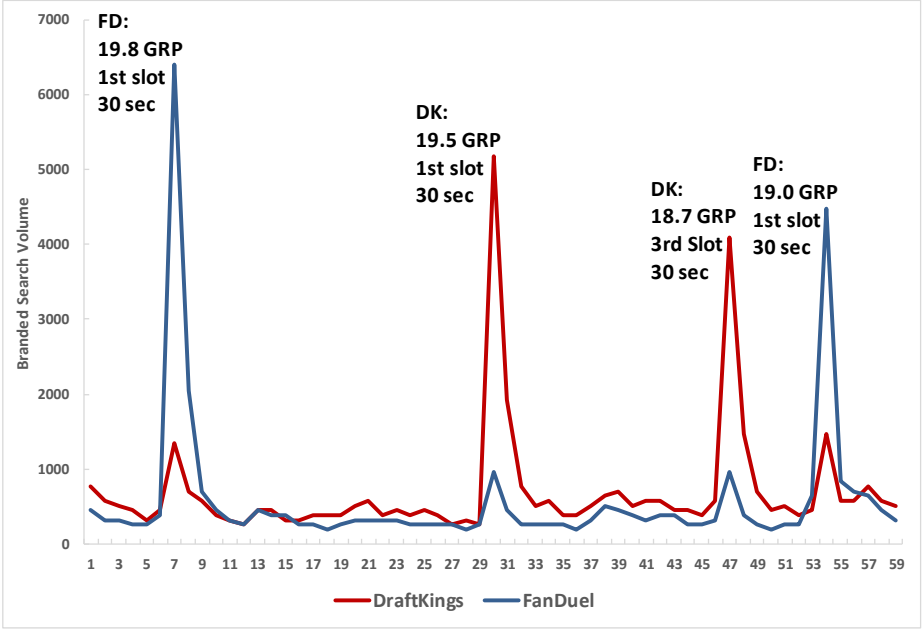


Chantix (branded)
vs.

Varenicline (generic)

Microfoundations of Causality

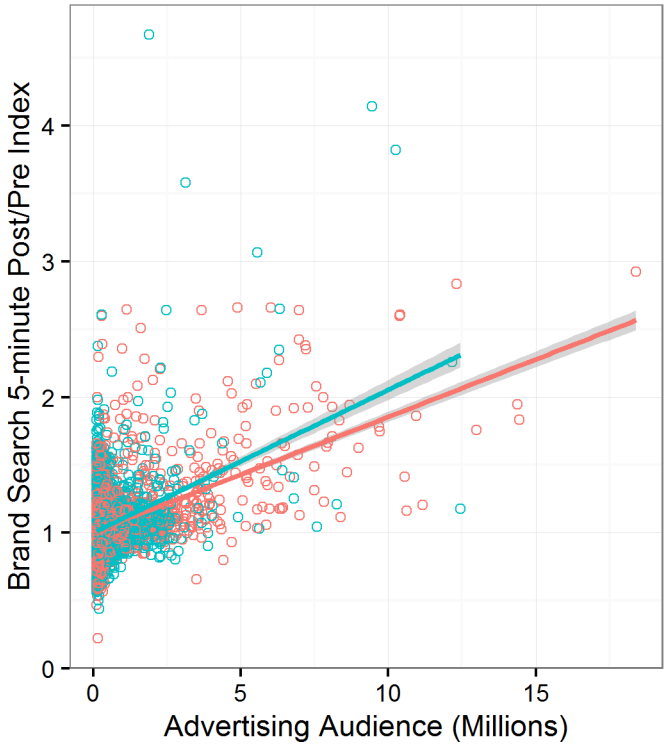
- Develop the argument more carefully that shows microfoundations of **DTCA→search** causality
- We know that TV advertising causes almost-immediate searches. The causal link has been shown several times:
  - Lewis and Reiley (2013); Joo et al. (2014); Liaukonyte, Teixeira and Wilbur (2015); etc.
- Branded and category spillovers exist: e.g, FanDuel and DraftKings

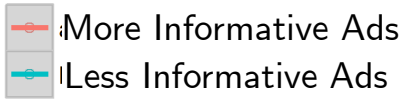


Du, Pettit, Wilbur and Xu (2016)

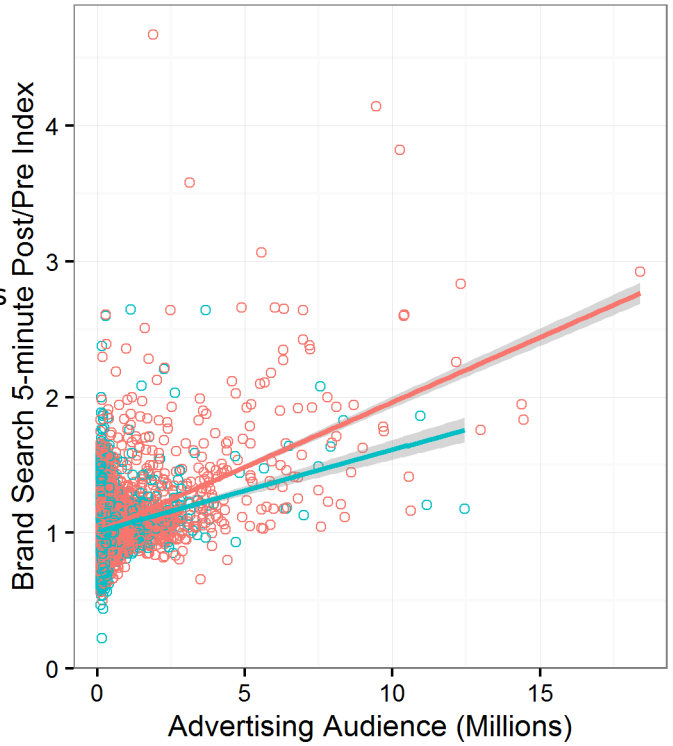
Microfoundations of Causality

Informative Ads lead to **lower** overall searches online



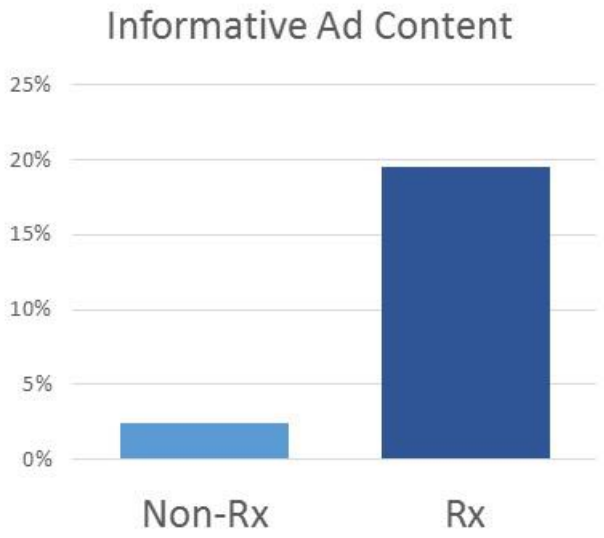


BUT Informative Ads lead to **higher** overall searches online for people who are in the market for the advertised products



Source of graphs: Du, Wilbur, Xu (2016)

Microfoundations of Causality



- Rx ads are **10x** more likely to be labeled as informative than non-Rx ads

Source: Ispot ad mood variable

Suggestions

- Encourage to add a case-study with more granular data to show the causation mechanism.
  - Google Trends data is now free and at the minute level.
  - Kantar data is available at the second level.
  - Both have market specific variation.