

Evaluation Design for Large Scale Communication and Social Marketing Programs

*RCTs are the gold standard,
except they're not.*

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The concerns about RCTs for CSMPs

- The mismatch between the CSMP paths of effect and usual assumptions of RCTs
 - Individual path of effect – requires comparing individuals with more and less exposure
 - Social path of effect - requires comparing social units (networks) with more and less exposure
 - Institutional path of effect - requires comparing aggregate units (communities/countries) with more and less exposure

The concerns about RCTs for CSMPs

Expected changes may be slow -- years.

Expected changes may be small – 1-2% per year.

(But slow and small may matter in the long run on a population basis.)

RCTs are better adapted to detecting quick large changes.

The concerns about RCTs for CSMPs

- CSMPs are not fixed; they aren't like drugs or vaccines.
- They describe a process for evolving an intervention
- The intervention mix will change over time; the ads will change, and so will the other elements of the marketing mix.

The concerns about RCTs for CSMPs

- Large scale CSMPs are often not politically open to RCTs.
- RCTs risk getting a very good answer to the wrong question -- controlling away central pieces of the communication activity. [CSMPs often need earned exposure and the national media machine.]

But what are the alternatives?

- Long term cohort studies
 - The NYAMC anti-drug evaluation (Hornik et al)
 - The VERB physical activity evaluation (Huhman et al)
- Look for evidence that
 - prior exposure predicts later outcomes, adjusting for prior outcomes and other potential confounders.
 - Requires large sample cohorts followed over time
- Appropriate for CSMPs with well-defined and stable outcomes, and resources to follow representative samples over years.

But what are the alternatives?

- Geographic cross-community comparisons
 - Media market anti-smoking commercials associated with lower smoking (Wakefield et al)
 - Truth campaign evaluation (GRPs purchased for Truth associated with less smoking at the media market level) [Farrelly et al.]
- Locate natural or planned (less likely) variation in extent of exposure and of outcome variable
 - Adjust for media market and higher level confounders.
- Appropriate when variation in exposure across roughly comparable media markets is likely.

But what are the alternatives?

- Interrupted Time series studies
 - Kentucky anti-drug campaign evaluation (Palmgreen et al)
 - Ticket or Clickit evaluations (Williams et al)
 - Brazil vasectomy campaigns (Kincaid et al)
- Look for evidence:
 - Show there was a sharp change in the slope of a behavioral outcome at the time a campaign was initiated
 - Argue, after careful investigation, that there was no other credible historical explanation for the shift.
- Appropriate for focused-in-time campaigns and for outcomes where substantial change is expected.

But what are the alternatives?

- Associational Time Series Studies
 - National High Blood Pressure Education Program (Rocella)
 - California Tobacco Control Program evaluation (Pierce et al.)
- Look for evidence:
 - Change in the slope of the outcome behavior coincident with the accumulating presence of the intervention
 - Argue and show evidence that rival explanations are not viable; *compare with places not receiving the intervention*
- Appropriate for large scale longer term interventions with good data about outcomes, and few plausible rival explanations for effects.

But what are the alternatives?

- Quasi-experiments
 - Stanford Heart Disease Prevention Program (Farquhar et al)
 - Vermont-Montana Anti-smoking (Worden and Flynn)
- Look for evidence:
 - Small number of treatment and control areas compared over time
 - Comparison locales show different trajectories of change
 - But substantial risk that comparison cities won't be comparable
- Appropriate for interventions with low risks of non-comparability; where there is little risk that non-intervention-related changes at the aggregate level will affect outcomes.

In sum

- CSMPs are often not well evaluated with RCTs
- There is growing experience with other approaches to evaluation of such programs
 - Long term cohort studies
 - Media market-level comparisons
 - Interrupted time series
 - Associational time series
 - And less promisingly- low degrees of freedom quasi experiments.
- Tolerate a useful if imperfect answer to the right question

References

- Hornik, Robert (ed.) Public Health Communication Campaigns, LEA 2002. (includes, Hornik et al; Kincaid et al; Palmgreen et al; Pierce et al; Rocella; Williams et al, Worden & Flynn)
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