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## Do We Ask too Much from Community-Level Interventions or from Intervention Researchers?

Martin Fishbein's editorial<sup>1</sup> is thought-provoking, timely, and important

from both a research and a policy perspective. However, his editorial lacks a clear distinction between the intervention and the research evaluation of that intervention that may mislead readers.

Dr Fishbein begins with an inappropriate analogy. If condom manufacturers were to evaluate the market share of a new advertising campaign at the end of 1 year and find that sales increased 4%, they might be quite satisfied. If the same condom manufacturers lacked data from the entire target population and needed to estimate the market share of the campaign, they might commission a survey research group to sample representative sites within the market area. If the survey research group concluded that the market share was somewhere between -2% and 6%, the condom manufacturers would be uncertain about the effect of the campaign and might be quite dissatisfied with the survey. It is this latter situation that is comparable to evaluations of community-level interventions, not the former. The problem is therefore not what we ask of community-level interventions but what we ask of the researchers who evaluate such interventions.

We have learned that community-level interventions are difficult to evaluate,<sup>2-5</sup> in part because their evaluation relies on samples of heterogeneous communities and choice of sensitive and clinically relevant outcome measures. Evaluation researchers are asked to detect effect sizes that not only have statistical significance but also have clinical or policy significance. A statistically "insignificant" result often reflects flaws in the research design (e.g., inadequate conceptualization, sampling, sample size, outcome measures, or analyses), not necessarily flaws in the intervention. As Cohen<sup>6</sup> and others<sup>7-9</sup> have noted, it is erroneous to interpret a statistically "insignificant" result as proof of the null hypothesis. Conversely, it is erroneous to interpret a statistically "significant" result as a meaningful effect. In fact, a statistically significant increase of 4% requires judgment from experts in the field as to its clinical or policy importance and, thus, a decision as to whether or not to disseminate the intervention.

It is thus evaluation researchers' responsibility to design, sample, and measure studies powerful enough to detect clinical or policy significant effects. If researchers do not have the resources to do so, it is prudent to develop those resources before launching an evaluation of the intervention. Most important, the shortcomings of evaluation research should not be confused with the inadequacy of interventions. Both are of vital importance, but they are separate issues. □

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