bridging the gap between research investigators and re-
search subjects.

Much more work needs to be done in this area to further
refine the methodology for implementing research that has
community oversight and to better capture the insights and
the discovery that are generated by the community, rather
then merely fostering one-way diffusion of medical inno-
vation from university to community.

We applaud the efforts of Reiner and Petereit, and
look forward to seeing the outcomes of their innovative
work and to see their methods adapted in many more
diverse settings across our nation.

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Tar Wars and Smoking Prevention: Premature Claim of
Effectiveness

To the Editor: Tar Wars, as evaluated by Cain et al,1 is
part of a large movement of knowledge-based, early-
education programs designed to inform elementary
school students about the dangers of tobacco use. The
authors have attempted to lend support to the claim that
“school-based tobacco education is one part of a com-
prehensive approach to youth tobacco prevention activ-
ities that has been shown to decrease youth tobacco
initiation.” They cite several articles that describe exist-
ing programs. Their intervention seems to be quite sim-
ilar to programs shown to be effective, which raises
questions about the authors’ claim that Tar Wars con-
tributes anything uniquely effective. We respectfully
question the methods presented by the authors and
would like to make several suggestions in the hope that
future assessments of the Tar Wars program might yield
substantive evidence of effectiveness.

One of our concerns is that students in the Cain
evaluation study were pre- and posttested after only 1
presentation; moreover, the full Tar Wars program with
its various components was not included for testing.
Considering that authors of previous studies of tobacco
education programs waited 1 to 2 years to test whether
information persisted to determine effectiveness, the sig-
nificance of this short-term test is questionable. The test
tapped into whether information would be remembered
by students after only 9 to 11 days, and students were
aware of the information on the pretest when they heard
the presentation. This does not seem to represent an
enduring test of knowledge or attitude change. We
would suggest that the Tar Wars posttest be conducted
after 1 year.

A second concern is that the quantitative measure
used in the evaluation included only 14 items, and among
them were 3 potentially confusing or irrelevant items
about tobacco advertisements in the mass media. If we
eliminated these 3 as too ambiguous, the entire program
effectiveness would be based on 11 questions, most of the
answers to which were already known by the students. Of
14 questions, students on average answered 8 or 9 cor-
rectly on the pretest. Therefore, of the 11 unambiguous
questions, there are only 2 previously unknown questions
on which to gauge the effectiveness of the entire pro-
gram. The authors should consider reformattting the
questionnaire by adding questions and ensuring that the
questions are clear and relevant.

The authors conclude that the students participating
in the program indeed learned new information. Results
showed an increase in correct responses for all questions.
However, because of the methodology, the increase may
potentially be explained by a practice effect. If children
saw the questionnaire before the presentation and recog-
nized the questions a few days later after the presenta-
tion, we fear that the increase in correct answers doesn’t
say much about the actual effectiveness of the interven-
tion or about attitude change, only that they remembered
test items they might have missed. Perhaps this could be
remedied if the measures occurred further apart in time.

The authors acknowledge the lack of a control group
in this effectiveness study. Students’ knowledge after
participating in the program was not compared with
other students who did not receive the program inter-
vention. However, the authors claim that other agents of
change to explain the children’s acquisition of knowledge
are “unlikely” and insist that “major changes [to the
program] are not needed.” It would seem that the authors
have no research foundation on which to make this claim.
The lack of a control group with which to confirm the
gain of knowledge combined with the questionable
methods used substantially weaken the authors’ claim
that no improvements are necessary to the program.

Effectiveness cannot be attributed to Tar Wars if
much of the program is repetition of previously known
information. Although Tar Wars may eventually prove
to be a valuable addition to school curricula, at this time
it is unlikely that it has added anything unique or novel
beyond similar programs.

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Reference

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The above letter was referred to the authors of the article in
question, who offer the following reply.