HIV information

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April, 2008
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- How effective would additional teacher training program be?
- How effective would encouraging student dialogue on HIV be?
- How effective would just keeping students in school be?
How to implement?

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- Additional teacher training: Can give some teachers additional training
- Student Dialogue: Set aside separate time for students to talk about HIV, and have an essay contest
- Keeping students in school: Primary schools are free in Kenya, but school uniforms are expensive. Can provide free uniforms to some students
Have 300 schools, but 70000 students. What should the level of randomization be?

- Which would work best for individual level intervention? Which for school level?

Uniforms could be effective at individual level; teacher training might work at class level, but would worry about spillovers if successful.

Student dialogue could only work at school level.

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How to jointly test so many interventions?

- Could conduct all of them at the same time (i.e. 2 groups: $G_1$ just gets standard message, $G_2$ gets uniforms+student dialogue+teacher training;)

Would be able to test: can we do better than government message
But, wouldn’t know which components were most important

Or, could conduct each separately (4 groups: $G_1$ gets standard message, $G_2$ gets uniforms, $G_3$ gets student dialogue, $G_4$ gets teaching)

Would learn which of these programs work relative to the standard message
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Independent interventions?

Could also treat the interventions independently. So, at random, some people will only be exposed to uniforms, some to uniforms and teacher training, some only to teacher training.

Study actually adopts the following spread of interventions

<table>
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<th>Grp</th>
<th>Num Schls</th>
<th>Govt Prog</th>
<th>Tch Train</th>
<th>Stud Dial</th>
<th>Unif</th>
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<td>40</td>
<td>YES</td>
<td>YES</td>
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<td>YES</td>
</tr>
</tbody>
</table>

What can you tell from this design?
Measuring Effects

Suppose we have an outcome variable related to HIV risk for group $G$, $\bar{Y}_G$

- then we know $\bar{Y}_1$ is our control group, the effect of the standard program.

$\bar{Y}_2$ tells us the mean outcome of teacher training + standard program. To find the additional effect of teacher training (for people with govt program), can take $\bar{Y}_2 - \bar{Y}_1$.

To find the effect of Uniforms, can take $\bar{Y}_4 - \bar{Y}_1$.

What does $\bar{Y}_3 - \bar{Y}_1$ tell us?

Effect of teacher training plus student dialogue $\bar{Y}_3 - \bar{Y}_2$ tells us: (effect of tech train+Stud dialogue+govt prog)-(effect of teacher training+govt prg)

This tells us the additional effect of student dialogue if you’ve already had teacher training and the govt program.
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Did the Program work?

Important to assess whether the program was implemented successfully

- Want to observe:

  - Randomization worked, so schools in all treatment groups look similar according to things the treatment couldn't affect.
  - Check similarities according to age, gender, ethnicity, teacher/pupil ratio, etc.

Uniform schools have higher attendance/lower dropout rates.

Check attendance at randomized visits, and enquire about missing students.

Teachers who have been trained in fact know more about HIV than those who didn't.

Conduct interviews with teachers and focus groups with students to see if education is different.

Also test students in all groups as to HIV knowledge.

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- But, students may well learn these answers without changing their behavior: want to observe whether they act safer in response to this information
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- Ideal

Ideal test results for HIV/other STIs very credible may have low power, especially with school children, very expensive, economical self reports of risk behaviors very hard to believe with sensitive questions, well documented but cheap, maybe suggestive

Compromise pregnancy data can be collected effectively even from classmates but, may be measuring something different – one (risk-avoiding) response to info may be to marry early, commence childbearing and have fewer lifetime partners

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For knowledge about HIV, results are more mixed. Student dialogue helped the most in answer questions about people with HIV and how to avoid HIV, but none of these programs were across-the-board success
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- smaller effects of other variables of reported sexual behavior, usually zero
Take-Aways

- Found that keeping people in school led to a reduction of risk behaviors

- Some evidence that extra training and student discussion also improved knowledge

- Echoes other evidence from RCTs (Dupas 2007) that suggests students respond even to more subtle messages of risk with behavioral change

- Dupas finds that girls who are told that older men have higher prevalence of HIV are more likely to choose younger partners

- Leads to big ethical questions: If we give people info on HIV, they respond with their behavior better be very sure that that information is right. Unethical also to withhold information that we know is right, if it can be implemented.

- Ethics, even in information campaigns and especially in HIV RCTs is a topic which needs great consideration

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Echoes other evidence from RCTs (Dupas 2007) that suggests that students respond even to more subtle messages of risk with behavioral change. Dupas finds that girls who are told that older men have higher prevalence of HIV are more likely to choose younger partners.

Leads to big ethical questions:
- If we give people info on HIV, they respond with their behavior; better be very sure that that information is right.
- Unethical also to withhold information that we know is right, if it can be implemented.

Ethics, even in information campaigns and especially in HIV RCTs, is a topic which needs great consideration.
Take-Aways

- Found that keeping people in school led to a reduction of risk behaviors
- Some evidence that extra training and student discussion also improved knowledge
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