

1. Which did you find most compelling about the “price of life” readings

- a) unintended consequences of HIV testing the entire US population
- b) unintended consequences of raising plane tickets to improve air traffic safety versus car accident statistics
- c) costs per life saved of asbestos removal versus pap smears
- d) poverty and lack of education can lead to reduced options/poorer decisions regarding personal health (and correlation to an earlier death)
- e) personal risk—“weight, exercise, sex, drugs, smoking, and investments”



Image Credit: Linda Cai <http://cdn1.theodysseyonline.com/files/2015/07/20/>

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Deciding Public Policy

The problem with testing the entire US population for HIV is that

- a) a positive result becomes relatively meaningless on its own because of all the false positives
- b) other



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What it does at least somewhat reveal is to change the probability that a person is HIV-positive from roughly 3 in 1000 (general population) to roughly 1 in 4 true positives in the test (but 3 in 4 would be false positives). Testing other populations would require a different analysis.



Image Credit: Linda Cai

- What are the pros and cons of HIV testing all of the US? all of Swaziland? of other populations?
 - If a test is 95% accurate for people who have a disease then it correctly tests positive 95% of the time, but incorrectly tests negative for them $100\% - 95\% = 5\%$ of the time (**false negative**). *Sensitivity* is .95.
 - If a test is 99% accurate for people who don't have a disease then it correctly tests negative 99% of the time, but incorrectly tests positive for them 1% of the time (**false positive**). *Specificity* is .99.

	Test+	Test-
Person is HIV +	HIV+ people × probability they test +	
Person is HIV -	# of false positives	
Total		