# Dani Rodrik's weblog

Unconventional thoughts on economic development and globalization

January 15, 2008

### Jeff Sachs vindicated

On insecticide-treated bed nets (ITNs), at least. There has been an ongoing battle between Sachs and segments of the global public health community on the appropriate delivery mechanisms for ITNs. The efficacy of ITNs in preventing malaria exposure is not in question. What has been debated is whether ITNs should be distributed free (the Sachs position) or at a positive, albeit subsidized price. Those who favor the latter argue, in part, that charging a fee makes the program more sustainable and that it reduces wastage from giving away the nets to those who do not need or will not use it. See the arguments <a href="here">here</a> (gated, unfortunately).

A <u>new randomized experiment</u> carried out by Jessica Cohen and Pascaline Dupas reaches striking and unambiguous results:

Taken together, our results suggest that cost-sharing ITN programs may have difficulty reaching a large fraction of the populations most vulnerable to malaria. Since the drop in demand induced by higher prices is not offset by increases in usage, the level of coverage induced by cost-sharing is likely to be too low to achieve the strong social benefits that ITNs can confer. When we combine our estimates of demand elasticity and usage elasticity in a model of cost-effectiveness that incorporates both private and social benefits of ITNs on child mortality, we find that for reasonable parameters, free distribution is more cost-effective than partial-but-still-highly subsidized distribution such as the cost-sharing program for ITNs that is currently underway in Kenya. We also find that, for the full range of parameter values, the number of infant lives saved is highest when ITNs are distributed free.

Finally, we do not find that free distribution generates higher leakage of ITNs to non-intended beneficiaries. To the contrary, we observed more leakage and theft (by clinic staff) when ITNs were sold at a higher price. We also did not observe any second-hand market develop in areas with free distribution. Among both buyers and "recipients" of ITNs, the retention rate was above 90 percent.

This is randomized experiments at its best: it addresses an important policy question and significantly changes (or should change) our priors on it.

UPDATE: Mead Over <u>takes issue</u> with my headline. Homework question for development students: Can randomized experiments ever settle an important policy question?

Posted at 10:43 AM | Permalink

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http://www.typepad.com/services/trackback/6aood8341c891753efooe54ff3bf718834 Listed below are links to weblogs that reference <u>Jeff Sachs vindicated</u>:

#### **Comments**



This was reported for Tanzania by Maxwell et al. in the Malaria Journal in 2006.\* Maybe Sachs read that piece?

\*It's one of the pieces I've been citing in my graduate school applications on how advances in health and developmental economics, and the corresponding empirical data from the sciences, will make economics more interesting, so I doubt it's obscure.

Posted by: Ken Houghton | January 15, 2008 at 01:10 PM



Dani - I believe this entry seriously overstates what one can conclude from Jessica and Pascaline's fine paper. With regard to the important role that positive prices play in generating public sector supply of goods and services, I urge your readers to read my colleague Mead Over's comments on the paper over at the Center for Global Development's Global Health blog. http://blogs.cgdev.org/globalhealth/2008/01/user\_fees\_for\_health.php

With respect to bednets specifically the evidence shows that positive prices play an important role in motivating commercial actors to import, distribute and sell bednets. The goal of malaria programs is to not only achieve high coverage of bednets today (catch up) but to maintain high coverage levels after donor attention and support wanes (keep up) – and this interest and development of the commercial sector plays a very important role in this sustainability. I have elaborated on these points in this blog entry (also at CGD)

http://blogs.cgdev.org/globalhealth/2007/10/battle\_over\_bednets.php

Posted by: april | January 15, 2008 at 06:52 PM



Dani,

While not exactly related to bed nets, we at the Vijayawada Municipal Corporation, Andhra Pradesh, India have, over the past two years, initiated a campaign to eradicate Malaria from this endemic City by 2011. We have analysed the information available for the 2000-05 period to arrive at a focussed, area specific, malaria action plan. The results have been truly spectacular, and the methodology is very easily replicable. I have posted the same in my blog at <a href="http://gulzaro5.blogspot.com/2008/01/empirical-analysis-in-anti-malaria.html">http://gulzaro5.blogspot.com/2008/01/empirical-analysis-in-anti-malaria.html</a>

While the number of positive cases detected across Vijayawada were 6271 in 2005, it fell 53.4% to 2921 in 2006, and 40.15% to 1748 in 2007. In the 10 most endemic sections where these methods were initiated in mid-2005, it fell 54.4% from 2652 in 2005 to 1129 in 2006, and 28.6% to 805 in 2007. In the 12 next vulnerable sections where the campaign was initiated in January 2007, it fell 34.4% from 752 to 493.

Posted by: Gulzar | January 16, 2008 at 03:20 AM



 $How \ much \ should \ it \ change \ our \ priors? \ Certainly \ it \ should \ change \ our \ priors \ on \ bednet \ distribution \ in \ Western \ Kenya.$ 

But what does this tell us about bed net distribution in other parts of world, with different attitudes toward corruption, different perceptions of malaria and availability of treatment, different levels of poverty and willingness to pay?

It would be a mistake to overstate these results and suggest that the case is closed, and free distribution is the superior approach.

The lesson to me is on the value of randomized experiments to create region-specific knowledge. This experiment shouldn't be seen as final, rather it should be replicated in other areas where policy-makers are debating whether bed nets should be distributed for free or for a price.

Posted by: paul | January 16, 2008 at 12:04 PM



Hi Dani: When Jessica Cohen presented this paper at the Center for Global Development, there was a discussion about the results from this bed net study versus work done on the same topic (whether or not to charge for health products in the developing world) by Nava Ashraf and others that leads to the opposite conclusion. Ashraf et al study a different product — a home water purification solution — and find that there is evidence that the act of paying for the product does increase use. In our discussion, we considered whether the conclusions from the two studies could be based on a difference in methodology of distribution of the product (clinic-based for the nets, door-to-door for the water purification solution), the difference in the products themselves, etc. I'd be interested to know your thoughts on the two studies and their results.

Posted by: Aditi | January 16, 2008 at 08:03 PM



The appropriate links for the above comment, I believe:

http://blogs.cgdev.org/globalhealth/2008/01/user\_fees\_for\_health.php

Posted by: Ken Houghton | January 17, 2008 at 04:17 PM



I agree with the comments that jumping to policy decisions from the results of a single study are premature. The real question in my mind is the supply chain and delivery mechanisms on a widespread scale. I think business in general has a better track record than government in efficient systems. Either way, I think additional studies will come out and the debate will continue.

Posted by: Dave | January 17, 2008 at 11:23 PM



Dani, like April Harding, I think you jumped the gun on this one. At the CGD we had the benefit of a very clear presentation by Jessica Cohen last week, which revealed that her paper with Pascaline Dupas, while fascinating, falls short of vindicating Jeff Sachs' sweeping assertion that free distribution of bed nets should be the sole subsidized distribution policy in any poor malarious country. I explain why in my new blog at: <a href="http://blogs.cgdev.org/globalhealth/2008/01/sachs">http://blogs.cgdev.org/globalhealth/2008/01/sachs</a> not vindicated.php

Posted by: Mead | January 18, 2008 at 11:29 AM



I'm not certain what was "revealed" to Mr. Over that was not at least implicit in the paper itself. (I presume that I'm not the only one to have read the available draft.)

It is implicit in Ms. Cohen and Ms.(?) Dupas's paper that there may be an optimal price point for bed nets. It is also clear that it probably significantly below 20 Ksh and possibly below 10 Ksh (see Figs 1a and 1b).

Since the cost of the bednets is 400 Ksh, and the current "market" price (see p. 6) is 50 Ksh, defenders of the don't-make-it-free argument are left to argue that the subsidy should be approximately 96.5-97% instead of 100%, or--from the Kenyans pov--that the cost of the nets should be reduced by at least 76-88%, if not a full 100%.

But under no condition does it appear that an increased subsidy from is not in itself cost effective, cet. par. And the argument that a 97% subsidy is preferable to a 100% one—especially given that the incremental administrative costs are not likely denominated in Ksh—likely will be based more on theory than balance sheet accuracy.

Posted by: Ken Houghton | January 21, 2008 at 07:56 PM



I should have made clear from the start: the response above is more aimed at Dave than Mead Over.

To Mead Over, I would note that the optimal effect is when the nets are distributed and used, and looking at Mses. Cohen & Dupas's paper, it appears that USAGE rates are higher at 0 Ksh than at 10 Ksh.

Figs 2a and 2b indicate 60-70% usage at 0 Ksh, but only 45-55% usage at 10 Ksh. That small spike you rightly think deserves more attention probably doesn't balance the 15% decline in usage rates.

Posted by: Ken Houghton | January 27, 2008 at 10:33 PM



I agree with Ken. The best result is when the nets are distributed and used

Posted by: Paul | July 11, 2008 at 04:38 PM

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