Authors
Jessica Cohen
Harvard University

Pascaline Dupas
Princeton University

THE
QUARTERLY JOURNAL
OF ECONOMICS

Vol. CXXV February 2010 Issue 1

FREE DISTRIBUTION OR COST-SHARING? EVIDENCE FROM A RANDOMIZED MALARIA PREVENTION EXPERIMENT*

JESSICA COHEN AND PASCALINE DUPAS

It is often argued that cost-sharing—charging a subsidized, positive price—for a health product is necessary to avoid wasting resources on those who will not use or do not need the product. We explore this argument through a field experiment in Kenya, in which we randomized the price at which prenatal clinics could sell long-lasting antimalarial insecticide-treated bed nets (ITNs) to pregnant women. We find no evidence that cost-sharing reduces wastage on those who will not use the product: women who received free ITNs are not less likely to use them than those who paid subsidized positive prices. We also find no evidence that cost-sharing induces selection of women who need the net more: those who pay higher prices appear no sicker than the average prenatal client in the area in terms of measured anemia (an important indicator of malaria). Cost-sharing does, however, considerably dampen demand. We find that uptake drops by sixty percentage points when the price of ITNs increases from zero to $0.60 (i.e., from 100% to 90% subsidy), a price still $0.15 below the price at which ITNs are currently sold to pregnant women in Kenya. We combine our estimates in a cost-effectiveness analysis of the impact of ITN prices on child mortality that incorporates both private and social returns to ITN usage. Overall, our results suggest that free distribution of ITNs could save many more lives than cost-sharing programs have achieved so far, and, given the large positive externality associated with widespread usage of ITNs, would likely do so at a lesser cost per life saved.

*We thank Larry Katz, the editor, and four anonymous referees for comments that significantly improved the paper. We also thank David Autor, Moshe Buchinsky, Esther Duflo, William Easterly, Greg Fischer, Raymond Guiteras, Sendhil Mullainathan, Mead Over, Dani Rodrik, and numerous seminar participants for helpful comments and suggestions. We thank the Mulago Foundation for its financial support, and the donors to TAMTAM Africa for providing the free nets distributed in this study. Jessica Cohen was funded by a National Science Foundation Graduate Research Fellowship. We are very grateful to the Kenya Ministry of Health and its staff for their collaboration. We thank Eva Kaplan, Nejla Lima, and especially Katharine Conn, Carolyne Nekesa, and Moses Banura for the smooth implementation of the project and the excellent data collection. All errors are our own. cohenj@hsph.harvard.edu, pdupas@econ.ucla.edu.

© 2010 by the President and Fellows of Harvard College and the Massachusetts Institute of Technology.

The Quarterly Journal of Economics, February 2010

Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment

It is often argued that cost-sharing—charging a subsidized, positive price—for a health product is necessary to avoid wasting resources on those who will not use or do not need the product. We explore this argument through a field experiment in Kenya, in which we randomized the price at which prenatal clinics could sell long-lasting antimalarial insecticide-treated bed nets (ITNs) to pregnant women. We find no evidence that cost-sharing reduces wastage on those who will not use the product: women who received free ITNs are not less likely to use them than those who paid subsidized positive prices. We also find no evidence

that costsharing induces selection of women who need the net more: those who pay higher prices appear no sicker than the average prenatal client in the area in terms of measured anemia (an important indicator of malaria). Cost-sharing does, however, considerably dampen demand. We find that uptake drops by sixty percentage points when the price of ITNs increases from zero to $0.60 (i.e., from 100% to 90% subsidy), a price still $0.15 below the price at which ITNs are currently sold to pregnant women in Kenya. We combine our estimates in a cost-effectiveness analysis of the impact of ITN prices on child mortality that incorporates both private and social returns to ITN usage. Overall, our results suggest that free distribution of ITNs could save many more lives than cost-sharing programs have achieved so far, and, given the large positive externality associated with widespread usage of ITNs, would likely do so at a lesser cost per life saved.

July 25, 2012