

3ie-IFPRI Joint Seminar: Health information, Treatment, and Worker Productivity: Experimental Evidence from Malaria Testing and Treatment among Nigerian Sugarcane Cutters

Jed Friedman, an economist at the World Bank, presented his co-authored paper [“Health information, Treatment, and Worker Productivity: Experimental Evidence from Malaria Testing and Treatment among Nigerian Sugarcane Cutters”](#) at the 3ie-IFPRI seminar on June 12th 2014. The paper evaluates the impact of malaria treatment on workers daily earnings and productivity by randomizing the timing of testing and treating sugarcane workers for malaria. They then explore the impacts of treatment and health status information on labor outcomes.

The sample consisted of daily laborers that could cut cane for a high piece-rate payment, or do scrabbling for a lower fixed rate. This choice measured labor supply. For productivity, the authors looked at daily outputs. The study tested individuals at random weeks and treating those who tested positive for malaria. The tests were based on parasite levels, categorizing individuals as malaria “positive” or “negative” depending on a threshold count. Many negative individuals still had malaria parasites in their bodies. The parasite level allowed the authors to infer malaria status from the weeks prior to testing individuals and in this way create a valid counter-factual for the treated individuals. Malaria treatment results in an 11-14% increase in general earnings from treatment over a period of 2-3 weeks. This increase is due in roughly equal parts by the increase in labor supply and an increase in productivity. The paper goes beyond these initial findings to disentangle the intervention’s causal pathways.

The authors disaggregate the results of the study depending on malaria treatment status. They find a 9-11% increase in earnings for the malaria positive workers (about 36% of the sample) through an increase in labor supply. Malaria negative workers also experienced an increase in earnings, but it was channeled through an increase in labor productivity. General health status information and malaria treatment are shown to result in different behavior changes within the population.

Kelly Jones an associate research fellow at IFPRI, served as the discussant. She commented on how peer effects may influence productivity and labor supply. She believed that the malaria treatment daily productivity results might be downward biased because treated individuals are “well enough” to work as opposed to not showing up due to sickness. For those found malaria negative, she recommended showing heterogeneous effects of job choice by age, since healthier and younger workers might react different to the health information they received. Other comments focused on the long term health effects of increasing labor productivity for individuals who fell just below the malaria parasite threshold.