

How to increase labor productivity of patients with AIDS in developing countries

Many patients with AIDS are receiving antiretroviral treatment via public programs especially in developing countries. Such programs are helpful for increasing the survival time of patients that in turn is beneficial for the well-being of their children. However, many patients are unable to afford nutritious foods for improving their health status and hence labor productivity. If, for example, patients face chronic food shortages and cannot perform productive tasks, then the benefits of antiretroviral treatment in reducing HIV viral loads and increasing CD4 cell counts will not translate into higher economic productivity. Thus, it is important to make antiretroviral treatment programs self-sustaining by providing nutritious food supplements that can increase labor productivity of patients.

For patients with AIDS receiving antiretroviral treatment, improvements in nutritional status and economic productivity are likely to depend on adherence to drug regimen and quality of diet reflected in protein and micronutrient intakes. This study in South Africa randomized 643 patients receiving antiretroviral treatment from public clinics in the Free State Province into a Control group, a treatment group receiving adherence support, and a treatment group receiving adherence support and a nutritious food supplement consisting of meatballs and spaghetti in tomato sauce. The data on food insecurity levels and time spent on various activities were analyzed for assessing the impact of the intervention programs.

The main results were that changes between survey rounds 1 and 3 were significant at the 5% level for outcomes such as food insecurity levels and CD4 cell counts. Moreover, there was a significant reduction in food insecurity levels of patients with Body Mass Index (BMI) less than 25 who received the nutritious food supplement. Second, the estimated parameters from models for patients' food insecurity levels showed that higher household incomes were significantly associated with lower food insecurity. Third, while patients' BMI was a significant predictor of time spent on sedentary, moderate and overall activity levels, it was important to separately evaluate the effects for under-weight and over-weight patients.

In summary, chronic energy deficiencies reflected in low BMI appeared to have been a greater detriment than obesity for performing productive activities by South African patients with AIDS. Because over-weight prevalence has recently increased among the poor who can afford basic foods, care is necessary in designing interventions. For example, energy content of supplements may need to be restricted for over-weight patients and weight loss programs can help reduce food insecurity levels. Overall, it is important to improve diet quality of patients with AIDS in sub-Saharan African countries for improving their labor productivity. Such policies will enhance the long-term sustainability of antiretroviral treatment programs.

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[Health status, food insecurity, and time allocation patterns of patients with AIDS receiving antiretroviral treatment in South Africa.](#)

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