

Food-supplement spending and patient working-hours link with the patient characteristics and clinical outcomes

**Background:**

The *STREAM* randomised controlled trial demonstrated that a 9-month regimen for multidrug-resistant TB (MDR-TB) treatment (similar to that tested in Bangladesh cohort studies) is clinically not inferior to the WHO 24-month regimen. As part of the trial's health economic component, longitudinal data on patient-spending were collected for MDR-TB trial participants in Ethiopia. The shorter regimen was associated with an earlier return to work and a reduction in the purchase of supplementary food. We are now exploring these data in relation to both gender, age, and time to smear conversion.

**Methods:**

For each trial arm (study n=80, control n=40) data were collected at 12-week intervals up to week 132. In the present analysis patients have been split by age (>35, <=35), with mean spending and mean working hours at each week considered for both the long and short arms in each category separately. Supplementary food spending by Male/Female was also considered for each arm. Associations with smear conversion were also explored.

**Results:**

Men spent more than women on supplements in both arms (\$215 and \$268 over 132 weeks), and there was no association with time to culture conversion. Early in treatment, younger participants spent more than older in the long arm (77% more at week12), whereas within the short arm older participants spent more than younger (61% more at week 12). There was no substantial difference in spending at treatment completion. In terms of working hours, males and older participants are working longer hours than females and younger participants, but the difference is not substantial.

**Conclusion:**

Men spent considerably more on supplements during treatment than women. This may be due to greater ability to pay, increased perceived need or otherwise. With men accessing TB care less than women globally, further investigations should be conducted as to whether these direct costs create a barrier for men in care-seeking. Further study of age and gender by primary earner will be conducted, along with qualitative research to decide how best to implement shorter regimens.