A randomized controlled trial to investigate the effects of incentives on tuberculosis testing rates in rural Philippines

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Method Article

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Abstract

Despite efforts to eliminate tuberculosis (TB), the Philippines continues to have one of the highest TB incidence rates in the world. Individuals of low socio-economic status are often at disproportionately high risk of contracting TB. However, TB testing rates remained low among this population, resulting in high disease transmission and deaths. Limited literature exists on interventions aimed at improving TB testing rates among populations living in extreme poverty in the Philippines. Therefore, this clustered randomized controlled trial (RCT) will investigate the effects of incentives for enhancing TB testing in rural health units (RHU) in the Philippines. The study will be conducted as part of the TB testing program led by International Care Ministries (ICM), a non-profit organization operating in the Philippines.

Introduction

In spite of efforts to eliminate tuberculosis (TB) in the country, the Philippines still has one of the highest TB incidence rates in the world, accounting for 7% of global TB cases (1).

Previous studies have suggested that barriers to effective TB management in the Philippines are multifaceted. The main barriers included financial constraints, patients’ perceptions of TB, social stigma and discrimination, and limited availability of care in health facilities. (2–6) Among these barriers, financial constraints were most commonly stated as a reason for failure to be diagnosed and adherence to treatment. (3,4) Thus, identifying interventions to address these barriers is a key component to enhance TB testing rates and achieve TB elimination.

International Care Ministries (ICM) is a non-profit organization that operates TB testing programs in various locations throughout the Philippines. Operational data from ICM indicated that TB testing rates were consistently low across most of the 12 field offices across the Visayas and Mindanao regions. However, TB testing rate was substantially higher in one field office compared to the other 11 field offices. In this field office, self initiated food and transport subsidies were provided for suspected TB patients. These observations provided the impetus to explore the possible impact of incentives on TB testing rates in ICM locales.

The goal of this clustered RCT is to investigate the impact of incentives on TB testing rates among populations living in extreme poverty in the Philippines.

Reagents

Equipment

Procedure

This study will be nested in the TB testing program operated by International Care Ministries (ICM), a non-profit organization in the Philippines.
To avoid indiscriminate mass testing, the following criteria will be adopted from the World Health Organization to identify high-risk participants: 1) cough for more than two weeks, 2) TB contact history, and 3) high risk group and a TB related symptom. (7) Participants with any one of the three criteria will be given a referral to the rural health units (RHU) to get further TB testing. All those who have successfully attended RHU for laboratory testing or diagnosis will be given a RHU reply slip to verify their attendance.

In this study, participants will be assigned to one of four RCT groups.

1. Group A (Control): Participants will receive a referral to the nearest RHU and oral encouragement from staff.

2. Group B (Food incentives): Participants will receive a referral to the nearest RHU and oral encouragement from staff. In addition, participants will receive 4 fortified rice packages prior to RHU attendance. An additional 4 fortified rice packages will be given for those who needed to attend the RHU for the second time to check test results.

3. Group C (Transportation subsidies to RHU): Participants will receive a referral to the nearest RHU and oral encouragement from staff. In addition, participants will receive 100 pesos for a visit to RHU prior to RHU visit as transportation subsidies. For participants living further away from the RHU, more subsidies will be given on a case-by-case basis. For those who need to attend the RHU for the second time to check test results, an additional 100 pesos will be given.

4. Group D (food incentives and transportation subsidies to the RHU): Participants will receive a referral to the nearest RHU and oral encouragement from staff. In addition, 4 fortified rice packages and 100 pesos transportation subsidies will be given prior to the RHU visit. Similar to Group C, for participants living further away from the RHU, more transportation subsidies will be given on a case-by-case basis. For those who need to attend the RHU for the second time to check test results, an additional 4 fortified rice packages and extra transportation subsidies will be provided.

**Troubleshooting**

**Time Taken**

1 year

**Anticipated Results**

Participants in treatment arms (Group B, C, and D) will have increased rates of RHU attendance for TB testing compared to the control group.

**References**


6. Reyes K, Amores JC. Barriers of Early TB Diagnosis among the Poor in Highly Urbanized Areas in the Philippines.