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EVIDENCE BRIEF

Evaluation of Mukti Phase 1 An Innovative Nutrition Program for Tuberculosis Patients in Madhya Pradesh, India

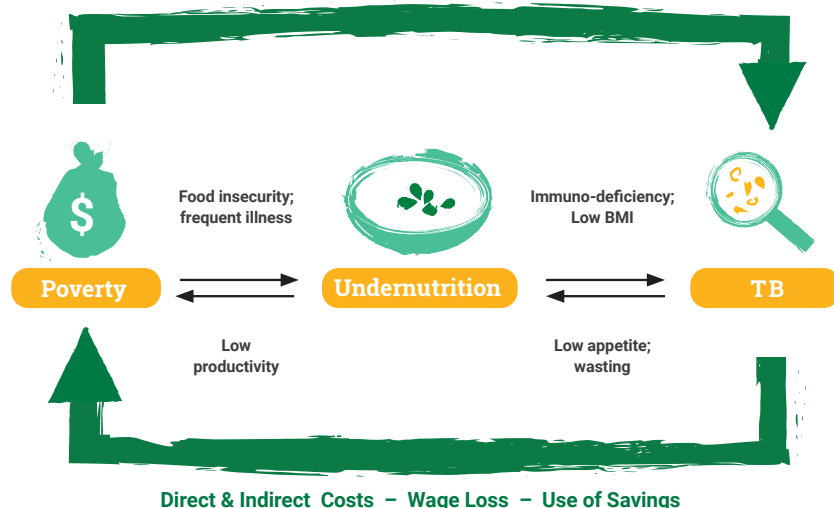
Introduction

Poverty and poor nutrition are closely intertwined factors associated with poor Tuberculosis (TB) outcomes, and the COVID-19 pandemic has exacerbated poverty and food insecurity in India and around the world. In March 2020, just as the COVID-19 lockdown began, ChildFund India piloted an innovative pay-for-performance program to improve the nutrition of TB patients in the Dhar district of Madhya Pradesh, which continued through February 2021. The model was conceptualized by USAID/India in collaboration with ChildFund and the State TB program in Madhya Pradesh. While ChildFund invested its own resources to implement the project, USAID/India was the outcome funder, making payment when the pre-determined outcomes of weight gain of more than 6 kilograms and TB treatment success were achieved per patient. IPE Global supported by USAID provided technical assistance to the project. The program is called “Mukti”, meaning “delivery from harm.” The goals of Mukti were to ensure that TB patients gained adequate weight and completed their course treatment.

Figure 1. **Undernutrition and TB**

Greater Exposure to Risk Factors – Poor Access to Care

A poor & malnourished patient is less likely to respond to treatment and has a greater chance of relapse



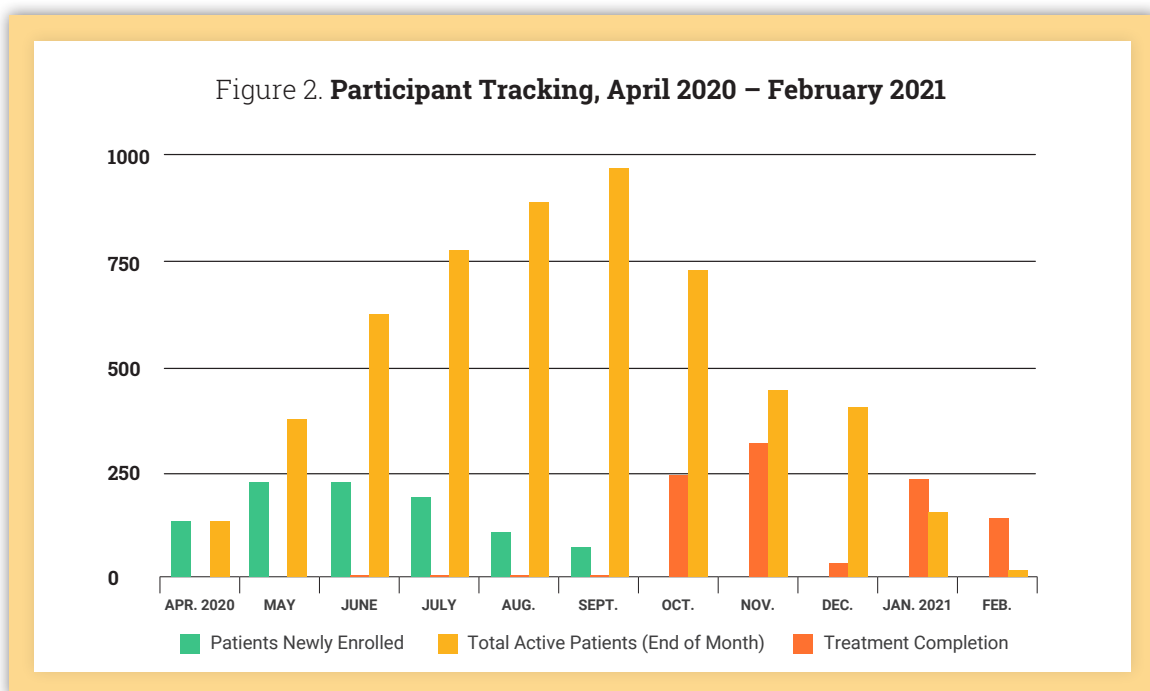
Project Methods and Implementation

Methods

We used a mixed methods approach to evaluate Phase 1 of Mukti, analyzing both qualitative and quantitative information to study program implementation, outcomes, and cost. The purpose of the evaluation was to better understand the contributions and impact of the intervention— and to inform the scaling of ongoing and future efforts. As of August 2022, Mukti is currently in Phase 2 of implementation. Data on the type of services received and costs came from the program's database. Data on outcomes came from two sources: for weight gain, data were from the program database. For treatment completion, data came from the national “Nikshay” database, which contains data on all TB patients in government facilities.

Implementation

Mukti participants received substantially more assistance and health and nutrition education than is provided routinely to TB patients in Dhar district or other parts of Madhya Pradesh. The Mukti intervention (Phase 1) was intensive and was implemented according to plan, in spite of the COVID-19 lockdown. A total of 1,000 participants from all TB treatment facilities in Dhar district of Madhya Pradesh were enrolled and received one or more monthly home visits from trained health professionals. They also received an average of six nutrient-dense food baskets during their 6 months of TB treatment – approximately one per month. Furthermore, participants attended more than two group meetings on average to receive instruction on improving nutrition during TB treatment. Most patients in Dhar also received help getting Direct Benefits Transfer financial assistance, which is eligible for all TB patients in India. Figure 2 illustrates the number of participants that were newly enrolled, active, and completing treatment by month.



Program Outcomes and Costs

Outcomes

According to key informant interviews and participants in focus group discussions, the assistance was well regarded and very helpful to the participants in improving their nutrition.

Mukti participants gained, on average, 6.2 KG during their treatment period—a substantial weight gain. Weight gain was similar by age and sex for adults. Treatment completion was already very high (about 90%) in Dhar district, where Mukti operated during Phase 1, and also in Jhabua, an adjacent control district that implemented the standard course of treatment. There were no significant differences between the two districts in treatment completion. Mukti met its goals of having at least 75% of participants who both completed treatment and gained at least 6 KG (for adults). The final rate was 76.4% of participants meeting that goal, as demonstrated in Table 1.



Table 1. Mukti Participants Meeting Targeted Outcomes (N=1,000)

TARGET	NUMBER	PERCENT
Weight Gain Sufficient	778	77.8
Treatment Completed	951	95.1
Both	764	76.4

Costs

The total cost of Phase 1 of the Mukti program was \$156,529 to serve 1,000 participants. The program, funded by the US Agency for International Development, was designed as a pay-for-performance initiative. Therefore, ChildFund was paid only for participants who met both the outcome goals, at a rate of \$166 per patient. Since only 764 participants met both the goals, the program was reimbursed \$126,824. Thus, in this initial phase of Mukti, ChildFund invested \$30,000 of its reserve funds to begin implementation of this innovative approach to enhanced nutrition for TB patients.

Conclusions

- In spite of a nationwide COVID-19 lockdown, Mukti was successfully implemented on schedule, in March 2020.
- Mukti participants received an intensive package of services, including home visits, food baskets, and group nutrition counseling. They also received help enrolling in the government's Direct Benefits Transfer system.
- Participants were very satisfied with the services they received.
- ChildFund was paid based on participants achieving their two goals of adequate weight gain and treatment completion. 76.4% of participants achieved those goals; slightly more than anticipated.
- Based on these encouraging findings, this initiative is being scaled across the state and is being considered for further expansion across the country. A follow-up study comparing both outcomes in intervention vs. standard course of treatment participants is recommended to better understand the impact of Mukti.



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