

# Food supplements for TB DOTS adherence in Tajikistan

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## Introduction – adherence to TB treatment

- adherence important for TB control and prevention of drug resistance
- disease of poverty
- support to enable patients to adhere
- patient support may be more important in the DOTS strategy than the more explicit component DOT

- Volminck&Garner 2008 Cochrane Review

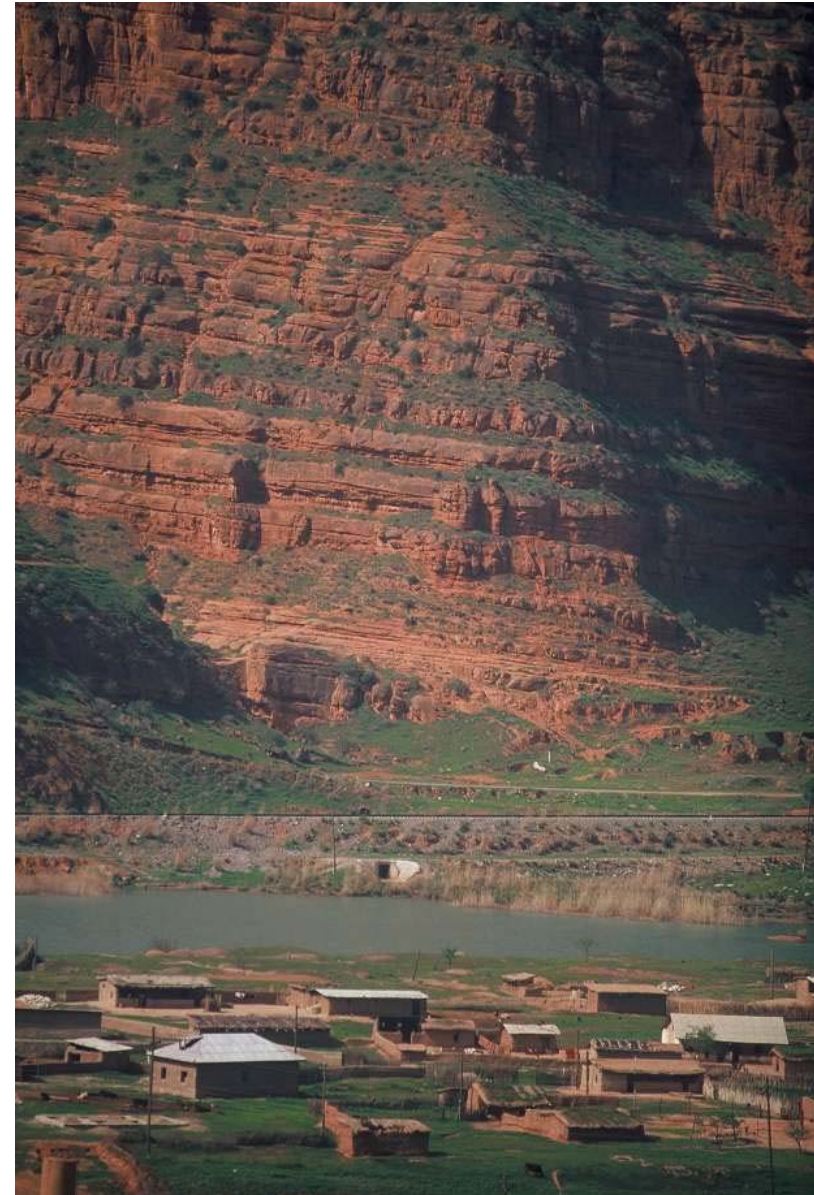
## Introduction - Tajikistan



- country of the former Soviet Union
- crisis after independence
- GDP per capita: USD 1600 (2007, PPP)
  - compare - Ghana: USD 1400, Chad USD 1500

## Introduction - Tajikistan

- 96% mountainous, many villages cut-off in winter
- mainly rural
- TB incidence 204/100'000/y
- DOTS program started 2002
- program of food supplements to TB patients



## Introduction - Tajikistan

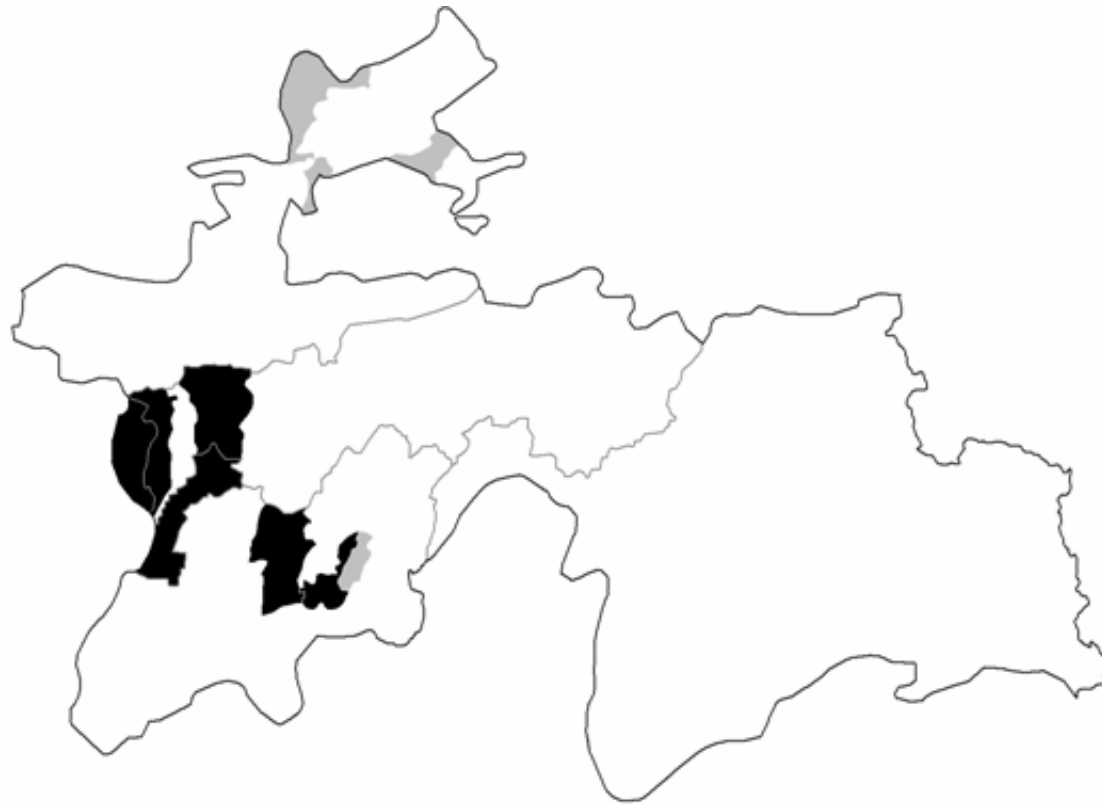


- affordability  
key to access
- costs of a TB  
episode:  
c. 1000 USD
  - medical & non-  
medical  
expenditure
  - lost income

## Research questions

- Do TB patients receive food supplements as foreseen by the program?
- What is the value of food supplements as estimated by patients?
- Are food supplements associated with expenditures for the patients?

## Methods – study pop



- six districts
- all new pulmonary TB patients  $\geq 15$ y
- recruitment Dec 2006 to Mar 2007

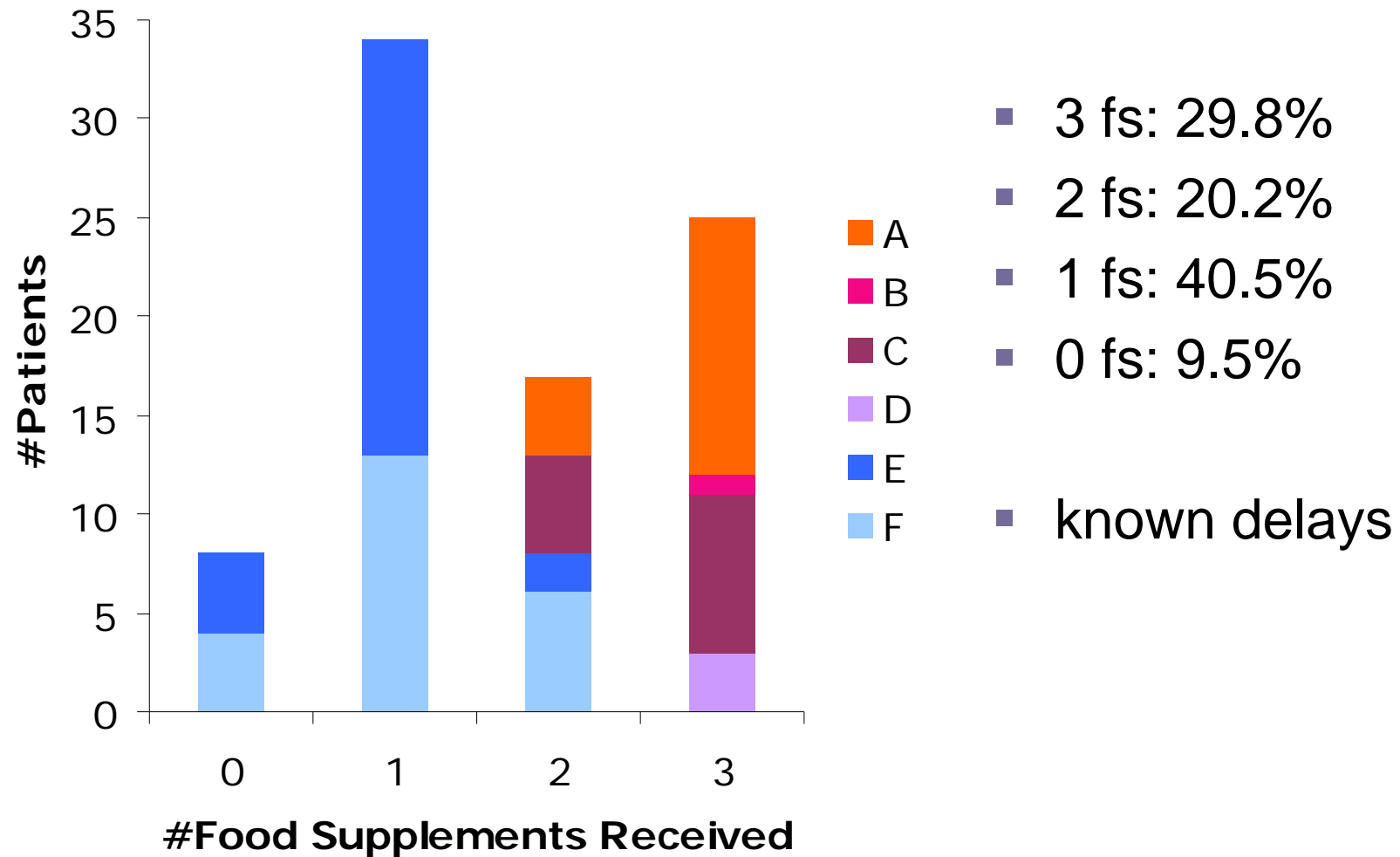
## Methods – data collection

- data collection within interview on household costs
- number of food supplements received
- expenditures (transport and informal)
- local market value of food supplements

## Results – profile of study participants

- 84 patients (46 men, 38 women), mainly from rural
- mean age 34y
- common professions: housewife (69%) among women, migrant worker to Russia (28%) and unemployed (24%) for men
- interview on average 167 days after start of treatment

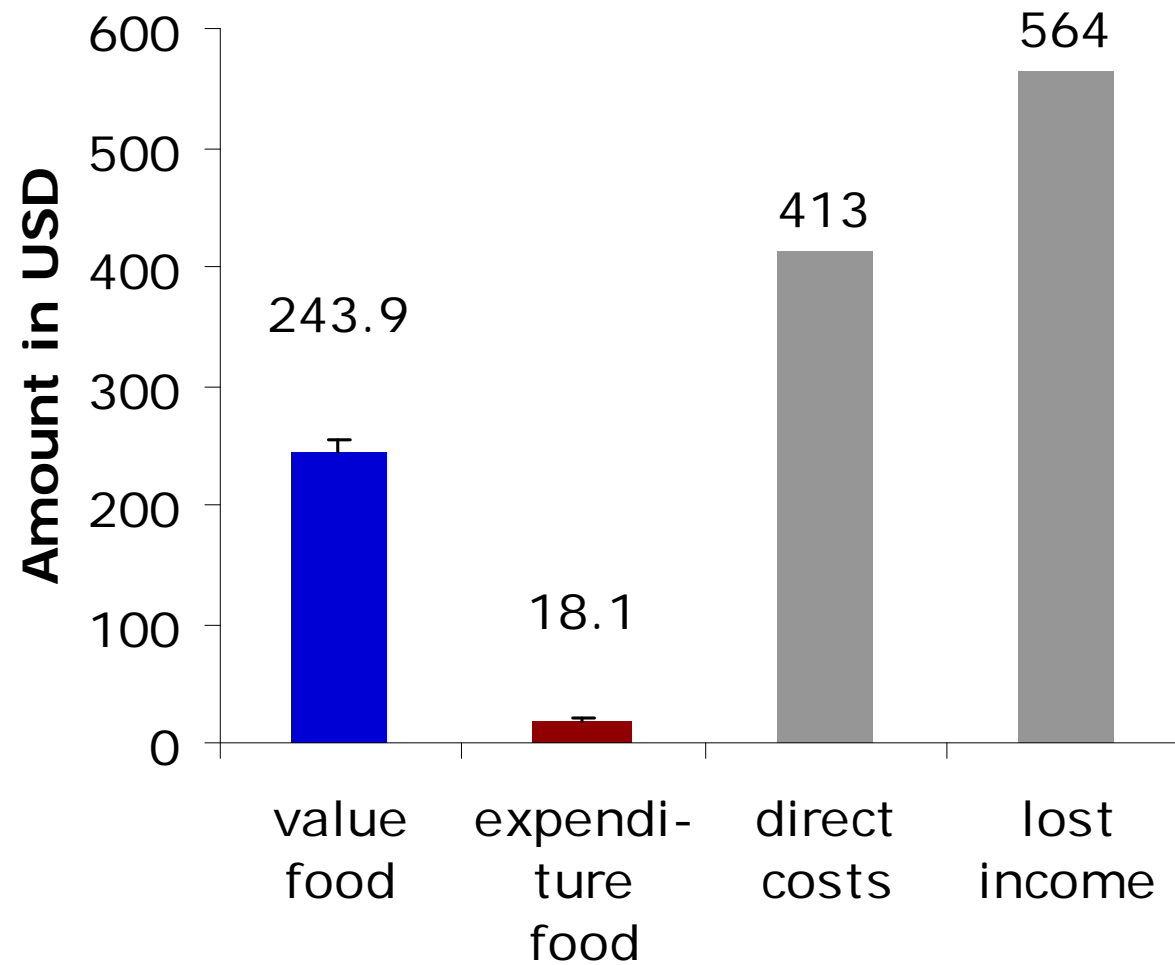
## Results – food supplements received



## Results – monetary value

- estimated local market value of one food supplement: 81USD ( $\pm$ S.E.=4.0)
- 3 fs: 244USD
- cost for transportation 4.9USD ( $\pm$ 0.43) per fs
- 18.8% of patients reported informal payments
- mean 1.1USD ( $\pm$ 0.61) per fs

## Results – contribution to household budget



## Discussion

- most food supplements reach patients
- informal payments are very limited
- total benefit of USD 225



## Discussion

- significant contribution to household economy
- potential to improve treatment outcomes
- does not compensate total costs of USD 1000
- household costs of TB most acute before enrollment and during first 2 months of treatment

## Key questions

- do food supplements actually improve treatment outcomes?
- what is ideal time point for food supplements?  
(trade-off: enabling <-> incentivising patients to adhere)

## Acknowledgements

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