Brief report: Opportunities and costs associated with a model DOTS program, Kolar district, Karnataka India

prepared for GoI's

National Tuberculosis Institute

in cooperation with

Centers for Disease Control and Protection, USA

6 June, 2013

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What: model DOTS program

- Review of the RNTCP goals and activities in Kolar district, Karnataka
- Evaluation of NSP relative to current program activities
- Evaluation of strategies and resources to implement model DOTS program in Kolar
- Analysis of current and anticipated costs and effect of model DOTS program relative to baseline

How:

- Evaluation team from NTI and UNTHSC
- Site visits and staff interviews take "snapshot" of TB care in practice
  - Systematic review moved from most central to least central
  - Recommendations from staff and others obtained at each level
- NSP and indicators aligned with proposed program and with recommendations from field
- Dynamic costing model constructed to represent current and projected program
  - Considers NSP and field recommendations
  - Interactive and dynamic

Results: document

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Results: model

		current programme		model programme		change	
stakeholder	**source**	**N**	**cost (IR)**	**N**	**cost (IR)**	**N**	**cost (IR)**
system, current year	Uncomplicated TB	390	1,661,565₹	390	1,798,065₹	0	136,500₹
	TB/HIV coinfection (TB-HIV)	29	123,552₹	29	133,702₹	0	10,150₹
	MDR-TB (HIV+/-)	6	99,860₹	6	96,896₹	0	-2,964₹
	Contact, case	850	168,300₹	1,190	235,620₹	340	67,320₹
	TB suspects examined	2,747	858,284₹	2,747	858,284₹	0	0₹
	MDR-TB suspects examined	8	2,500₹	8	11,748₹	0	9,248₹
	Hospitalization day	893	47,124₹	893	47,124₹	0	0₹
	public health system infrastructure	1	619,681₹	1	1,291,743₹	0	672,062₹
system, future	Secondary transmission, non-MDR	667	12,721,755₹	548	10,754,752₹	-119	-1,967,003₹
	Secondary transmission, MDR-TB	44	758,795₹	41	686,747₹	-3	-72,047₹
individual	Personal spending	425	4,957,445₹	425	4,957,445₹	0	0₹
	Health loss: patient death	64		41		-22	
	total		22,018,860₹		20,872,126₹		-1,146,734₹

Strengths, Weaknesses, Opportunities, and Threats to the RNTCP

Strengths	❖ Well-established system of operation with a network of trained personnel. ❖ Program caters to low-middle class by providing care and treatment free of charge
Weaknesses	❖ Inability to detect and reach high-risk groups (e.g. prisoners, mine workers, etc.) ❖ Activities are not aggressive enough to prevent patients from defaulting.
Opportunities	❖ Use aspects of this program to model successful TB control in other states and districts. ❖ Provide data for future policy changes regarding TB control within the states and other districts. ❖ Data mining using NIKSHAY. ❖ Increase work force
Threats	❖ Inability to expand resources to sustain the increasing amount of TB patients. ❖ Unorganized and non-compliant private sector. ❖ Stigma as a result of lack of TB education and in the community.

Conclusions

- Model DOTS program feasible and desirable
- Interactive modeling useful to inform program decision making.
  - Comparing Q1 2013 Kolar current and proposed program:
    - Model DOTS program saves >1.1 million IR, 22 lives, 119 new TB 3 new MDR-TB
- NSP objectives feasible
  - Multiple possible ways forward

Namaste and thank you!