

*Discussion:*

Improving Maternal Health with Incentives to  
Mothers vs. Health Workers: Evidence from India

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*Missouri Valley Economic Association (MVEA) 2014 Conference*

St. Louis, MO

October 25, 2014

# Summary

Raising maternal health care utilization may improve neonatal survival

Public policy tools to increase such utilization include:

- Conditional cash transfers to low-income mothers
- Incentives for health care service workers

JSY program in India has both features, with some variation across states and locations in eligibility and incentive payments

Author uses data from DLHS and a diff-in-diff strategy to find effects of JSY's incentives on institutional birth, utilization of prenatal care, immunization, and infant mortality

Main findings:

- JSY raises the likelihood of women delivering in a health care facility
- JSY raises the likelihood of women receiving prenatal care, immunizations for babies
- Cash given to health workers has larger effects than cash given to mothers
- JSY reduces early neonatal mortality, but has no effect on late neonatal mortality
- Results indicate strong complementarity between incentives given to mothers and health workers, especially for poorer or less-informed households

# Evaluation

Overall, the paper addresses an important topic, is well motivated and methodologically straightforward

## Strong and helpful features:

- Thorough coverage of previous literature
- Comprehensive (for non-experts) description of health care system in India
- Impressive amount of performed analyses (including analyses on subsamples)
- Well-thought-out robustness analyses: use of DLHS-II to investigate possible differential trends, analysis using bordering districts (a “regression discontinuity” approach), attempt to perform placebo (falsification) tests, investigation of potential heterogeneity of program effects
- Novel comparison of relative effectiveness of cash incentives given to users vs. those given to public service workers

## Weak aspects and avenues for improvement:

- A nonstructural program-evaluation study. No economic model to help frame the analysis. No quantitative comparison of JSY program benefits with its costs
- The first half of the paper is well written. The remainder (especially, Section 6) needs work to improve the exposition and avoid excessive repetition

# Substantive Comments

The paper should clarify at the outset that it does not analyze effects of actual participation in JSY program, but rather effects of its availability and potential participation in it. In essence, we only learn about “intent-to-treat” effects, but not necessarily about treatment effects per se

Analytical samples are restricted to women who gave birth to a single child. How representative are such women of the population of Indian women in the relevant age range? An extended discussion of the generalizability of obtained results is needed

Ultimately, we want to learn if JSY program helps to “produce” healthy (or healthier) babies. At present, the paper focuses too much on the “inputs” into this production (e.g., prenatal care) and not nearly enough on the “outputs.” In particular, only infant mortality is analyzed, but not birth weight, congenital defects, or premature birth incidence

# Other Comments and Suggestions I

On p. 2, you say that basic maternal and child health care is free or provided at minimal cost. Perhaps you want to clarify if it is in the world as a whole, or in developing countries, or in India

On p. 3, you refer to “early” and “late” neonatal mortality. These need to be explicitly defined. E.g., “early” means death within first XX hours after the moment of birth (you only introduce the definition in a footnote later in the paper)

When preparing a journal submission, some things will need to be cut. One possibility is to reduce the length of “background,” by dropping details that are not essential to understanding JSY program

Abbreviations need to be used more consistently. Currently, there are several instances when you use an abbreviation before actually defining it. Also, there are instances when you define the same abbreviation twice

# Other Comments and Suggestions II

I do not understand your convention regarding using commas when reporting large numbers. For example, in Table 3 you report “1,90,334.” Is this supposed to be “190,334” people or is this a typo and you actually meant 1 million+ people? (*Note:* by convention, commas are used to separate groups of three digits)

Use footnotes sparingly. You have too many of them at present

I noticed a lot of repetition in Sections 6 and 7. There is no need to repeat things you explained earlier

When discussing Table 13 on p. 18, you refer to panels in this table. However, the table itself (on p. 42) has no panels. It seems that a set of the estimates is missing

The rationale for having the appendix is unclear. Since you discuss nearly all figures and tables from this appendix in the main text body, they should be in the main body too

# Minor Issues I

In Figures A.1 and A.2, clarify the scale of the vertical axis (i.e., you show the number of deaths but per how many people?)

p. 2: “utilization of such services ... **are** very low” : are → is

p. 3: “reduced four early neonatal mortality per 1000 live births” : I understand what you mean here, but it is poorly phrased. Instead, you could say: reduced early neonatal mortality by 4 deaths per 1,000 live births

p. 4: “Generally, the literature... remains unclear” : this is poorly phrased. Instead, you could say that the literature does not find a clear/unambiguous effect for cash transfers

p. 5, first sentence: I don't understand what you meant to say here

p. 5: Duflo et al. (2012) **finds**: finds → find

p. 5: Briefly explain what “Hawthorne effect” is

# Minor Issues II

p. 6, footnote 9: what does “ANM” stand for? I.e., you used this abbreviation before having defined it

p. 6, footnote 9: “1,48,124” seems like a typo to me

p. 6: “complications during delivery **requires**” : requires → require

p. 7: “**a** local community health workers” : either drop “a” or say “health workers in a local community”

p. 7, footnote 15: “woman to obtain” → “woman in obtaining”

p. 7, footnote 15: the wording of “(h)...” needs to be improved

p. 7: “schooling **were** eligible” : were → was

*NOTE:* I stopped tracking minor issues after this point in the text. You may want to do an editorial review to fix any remaining copyediting problems