# NEW INCENTIVES IMPACT EVALUATION

## PRELIMINARY RESULTS BRIEF

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IDinsight

DATA. DECISIONS. DEVELOPMENT.

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# INTRODUCTION

This brief presents initial results for IDinsight's randomized control trial (RCT) of the New Incentives – All Babies Are Equal program encouraging routine immunization (RI) in North West Nigeria. We report results for primary and secondary outcomes from both household survey data and clinic administrative data. The purpose of the brief is to give GiveWell early results for the most directly decision-relevant analyses and receive reactions to them. Subsequent rounds of analysis, conveyed via the final report, will explore implications of measurement challenges (i.e. self-report error) in greater detail and conduct secondary analyses for alternate outcomes and sub-samples. GiveWell's assessment of the results in this report and how they are expected to influence decisions, along with comments from New Incentives and Anna Heard (third-party reviewer), will help IDinsight prioritize follow-on analysis.

# HOUSEHOLD DATA ANALYSIS

## DATA SOURCES AND SAMPLE

The dataset used to run the household data-based analysis contains data from several sources. The most important data source is the endline household questionnaire, which collected information on children's reported vaccination status, vaccinations cards, and child-, caregiver-, and household level characteristics, which are introduced in the main regression as control variables. Clinic-level control variables come from the endline clinic staff survey, as well as New Incentives' pre-screening survey. Baseline immunization coverage rates, also used as covariates, come from the baseline (household) Routine Immunization survey. Tables A and B in the section "Detailed information on outcomes" provide an overview of each variable included in the main regression.

In total, enumerators found 5,438 eligible children. For 212 (3.9%) of these children, enumerators could not find an eligible respondent in three visits and, therefore, did not collect routine immunization data.[1] For 53 (1%) additional children the child's caregiver refused to participate in the RI survey. Hence, in total, an RI survey was conducted for 5,173 children. The main regression specification (see the next section) includes 5,141 of these 5,173 children. Data from 15 children was dropped as they were from Kairu PHC, a clinic in Zamfara in which we did not conduct the baseline survey, and for which we therefore have no baseline coverage data.[2] An additional 17 children were dropped because IDinsight's GPS checks found that these children's households were actually located outside of the segments selected for surveying. Enumerators erroneously included these households during surveying (e.g. as a result of navigation mistakes).

[1] Eligible respondents were either the child's primary caregiver or, if she/he was unavailable, the person usually responsible for taking the child for healthcare.

[2] In excluding Kairu from the main analysis, IDinsight followed the approach laid out in the Pre-Analysis Plan (PAP) (see p. 13, footnote 51). We could also include Kairu PHC in the main specification and use a missing dummy to account for absent covariates. This is the approach we take for covariates missing for other reasons (see the next section for more details). As there were only 15 eligible children in Kairu PHC, this should not substantially affect results.

## ESTIMATION STRATEGY

Our estimation strategy followed the regression specification provided in the Pre-Analysis Plan (PAP) (see p. 13):[3]

$$\boldsymbol{Y_{ij}} = \beta_0 + \beta_1 * T_j + \beta_2 * B_j + \beta' * P_{ij} + \beta' * \alpha_j + \beta' * S_j + \varepsilon_{ij}$$

- $Y_{ij}$ is the endline vaccination status of eligible infant i in clinic cluster j. See Table A for an overview of the different vaccination outcome measures included in the analysis.
- $T_j$ is the treatment status of clinic cluster j which includes infant i.
- $B_j$ is the baseline coverage rate for the outcome among 12 to 16-month olds for clinic cluster j. For Jigawa, this variable takes the value of 0 with the variation taken by the state dummy.
- $P_{ij}$ is a vector of individual and clinic level covariates. See Table B for details on the variables included.
- $\alpha_j$ is a vector of randomization strata dummies
- $S_j$ is a vector of state dummies
- $\varepsilon_{ij}$ is the error term for infant i in catchment j clustered at the clinic cluster-level[4]

There were a few missing values for most of the individual and clinic level covariates (see Table B for more details). In order to avoid excluding these observations from the main specification, we used the following approach: we coded the covariate as 0 when missing and included a dummy variable for each covariate taking the value of 1 if the covariate is missing for an observation. We report a regression excluding missing values as a robustness check (see the Section "Robustness checks").

### DETAILED INFORMATION ON OUTCOMES

This brief includes regressions for a total of 10 different vaccination status outcome measures. Each measure is shown and described in Table A.

**Table A. Overview of outcome variables used in regression analysis**

| Name of outcome | Description | Missing values (out of 5141) |
|---|---|---|
| **BCG** | Child received the BCG vaccine (Yes (1); No (0)) | 0 |
| **Any Penta** | Child received at least one Penta vaccine (Yes (1); No (0)) | 0 |
| **Any Measles** | Child received at least one Measles vaccine (Yes (1); No (0)) | 0 |
| **Any PCV** | Child received at least one PCV vaccine (Yes (1); No (0)) | 0 |
| **Full (loose)** | Child is fully immunized (loose) (received BCG, at least one Penta, and Measles vaccines) ((Yes (1); No (0)) | 0 |
| **Full (strict)** | Child is fully immunized (strict) (received BCG, Penta 1-3, and Measles vaccines) ((Yes (1); No (0)) | 0 |
| **Total (no PCV)** | Total number of vaccines received by child (count includes BCG, all Penta vaccines, and one Measles vaccine) (ranges from 0 to 5) | 0 |
| **Total (with PCV)** | Total number of vaccines received by child (count includes BCG, all Penta vaccines, all PCV vaccines, and one Measles vaccine) (ranges from 0 to 8) | 0 |
| **Ever vaccinated** | Child has received at least one injectable vaccine ((Yes (1); No (0)) | 0 |
| **BCG scar** | Child has a BCG scar (on left and/or right arm) ((Yes (1); No (0)) | 229[5] |

[3] As a result of our sampling strategy – which used maps to randomly select 25% of the land area of each settlement – the sample is largely self-weighted. Observations from a few settlements had to be reweighted as not exactly 25% of the land area was selected for surveying (in most cases these were very small settlements for which IDinsight could only draw 1 segment, which was surveyed completely).

[4] Out of 167 clinics included in the study, 8 clinics were randomized as pairs. Standard errors are clustered at the unit of randomization, i.e. the clinic pair level.

[5] The information on whether the child has a BCG scar or not is missing for these children because the child was not present/available when the survey was conducted, or the caregiver refused to let the enumerator search the child's arms for the scar.

### DETAILED INFORMATION ON COVARIATES

Table B provides detailed information on the individual, and clinic level covariates included in the main specification (vector $\boldsymbol{P_{ij}}$).

**Table B. Overview of individual and clinic level covariates included in main specification**

| Name of covariate | Description | Data source | Missing values (out of 5141) |
|---|---|---|---|
| **Male** | Child is a boy (Yes (1); No (0)) | Endline RI survey | 0 |
| **Born at clinic** | Child was born at a clinic (Yes (1); No (0)) | Endline RI survey | 202[6] |
| **Islamic school** | Caregiver attended Islamic school (Yes (1); No (0)) | Endline RI survey | 19 |
| **Formal education:**<br>**Primary educ**<br>**Secondary educ**<br>**Tertiary educ** | Caregiver's level of formal education:<br>Some primary education (Yes (1); No (0))<br>Some secondary education (Yes (1); No (0))<br>Some tertiary (=post-secondary) education (Yes (1); No (0)) | Endline RI survey | 22 |
| **Age:**<br>**Aged 20 to 29**<br>**Aged 30 to 39**<br>**Aged 40+** | Caregiver's age:<br>20-29 years (Yes (1); No (0))<br>30-39 years (Yes (1); No (0))<br>40 years and above (Yes (1); No (0)) | Endline RI survey | 103[7] |
| **Household size** | Number of people who live in the same structure; and who eat from the same pot or report the same household head | Endline household listing | 0 |
| **Subjective wealth** | Caregiver's self-assessment of wealth using a wealth ladder (steps 1 (poorest) to 7 (richest)) | Endline RI survey | 26 |
| **Objective wealth** | Latest Nigeria Poverty Probability Index (PPI) score (ranges from 0 (poorest) to 100 (richest)) | Endline RI survey | 31 |
| **Catchment size** | Size of catchment area in square kilometers | GIS estimates | 0 |
| **VCM baseline** | UNICEF Volunteer Community Mobilisers (VCMs) were operating in the clinic at baseline (Yes (1); No (0)) | New Incentives pre-screening survey | 0 |
| **VCM endline** | UNICEF Volunteer Community Mobilisers (VCMs) were operating in the clinic at endline (Yes (1); No (0)) | Endline clinic staff survey | 16 |
| **Campaigns** | Number of campaigns that were carried out in the clinic during the study period[8] | Endline clinic staff survey | 16 |

## PRELIMINARY STUDY RESULTS

### PRIMARY RESULTS (MAIN SPECIFICATION)

The primary results for all 10 outcomes measures are shown in Tables 1-3. The regression (including covariates) described in the previous section was estimated for each outcome. To improve the readability of the table, only the coefficient on the treatment dummy is shown for each regression.[9] The table also shows the coverage rate in the control group for each outcome.

[6] The high number of missing values for this variable results from a questionnaire skipping pattern, which made it possible for enumerators to erroneously skip this question.
[7] 85 caregivers reported that they did not know their age. This explains the high number of missing values for this variable.
[8] The PAP specified a different variable: "Whether any other immunization programs were operating in the clinic catchment area during the study period". However, based on the clinic staff survey, other immunization programs had been operating in all clinic catchments included in the study. Hence, there was no variation in the values for this variable, and the variable "Number of campaigns" was included instead.
[9] The accompanying log file shows the complete regression output, including coefficients on covariates. An unadjusted regression that does not include any control variables is shown for each outcome as a robustness check in the Appendix. Appendix tables A1.1, A2.1, and A3.1 report robustness checks for the primary outcomes.

**Table 1: OLS regression results for primary outcomes**

| | (1) BCG | (2) Any Penta | (3) Any Measles |
|---|---|---|---|
| Treatment | 0.164*** | 0.209*** | 0.143*** |
| | [0.119,0.210] | [0.162,0.256] | [0.105,0.182] |
| Control Mean[1] | 0.630*** | 0.542*** | 0.589*** |
| | [0.570,0.690] | [0.477,0.606] | [0.543,0.636] |
| Covariates | YES | YES | YES |
| Observations | 5141 | 5141 | 5141 |
| Adjusted $R^2$ | 0.140 | 0.173 | 0.112 |

95% confidence intervals in brackets
[1]Control means are taken from a separate regression of the outcome variable on treatment status with no covariates.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

**Table 2: OLS regression results for composite secondary outcomes**

| | (1) Full (loose) | (2) Full (strict) | (3) Total (no PCV) | (4) Total (with PCV) | (5) Ever vaccinated |
|---|---|---|---|---|---|
| Treatment | 0.255*** | 0.271*** | 1.059*** | 1.801*** | 0.0246 |
| | [0.211,0.298] | [0.228,0.315] | [0.861,1.257] | [1.478,2.125] | [-0.006,0.055] |
| Control Mean[1] | 0.402*** | 0.254*** | 2.455*** | 3.572*** | 0.857*** |
| | [0.347,0.457] | [0.206,0.301] | [2.186,2.724] | [3.137,4.007] | [0.820,0.893] |
| Covariates | YES | YES | YES | YES | YES |
| Observations | 5141 | 5141 | 5141 | 5141 | 5141 |
| Adjusted $R^2$ | 0.176 | 0.177 | 0.223 | 0.227 | 0.071 |

95% confidence intervals in brackets
[1]Control means are taken from a separate regression of the outcome variable on treatment status with no covariates.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

**Table 3: OLS regression results for additional secondary outcomes**

| | (1) Any PCV | (2) BCG scar |
|---|---|---|
| Treatment | 0.223*** | 0.217*** |
| | [0.177,0.269] | [0.171,0.264] |
| Control Mean[1] | 0.495*** | 0.415*** |
| | [0.431,0.560] | [0.368,0.461] |
| Covariates | YES | YES |
| Observations | 5141 | 4912 |
| Adjusted $R^2$ | 0.177 | 0.126 |

95% confidence intervals in brackets
[1]Control means are taken from a separate regression of the outcome variable on treatment status with no covariates.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results suggest a substantial positive impact on vaccination coverage rates of the New Incentives program. The treatment coefficient is positive for all outcomes, and highly statistically significant for all outcomes with the exception of "Ever vaccinated".[10] With regard to primary outcomes, the impact estimate is 14 percentage points (pp) for "Any Measles", 16pp for "BCG", and 21pp for "Any Penta". The impact estimate for the BCG vaccine is 6pp higher when using children's BCG scars (22 pp) rather than their caregiver's self-report of the vaccine as an outcome measure. The composite indicators of full immunization and the total number of vaccines received by a child show the aggregate effects across incentivized vaccines. The probability that a child is fully immunized is more than 25pp higher in the treatment than in the control group (for both the loose and the strict definition of full immunization). On average, a child in a treatment clinic receives 1 more vaccine (out of the five vaccines: BCG, Penta 1-3, and Measles), and close to 2 more vaccines (out of the eight vaccines: BCG, Penta 1-3, PCV 1-3, Measles) compared to a child in a control clinic.

The only outcome for which the treatment coefficient is small, and not statistically different from zero (at the 5% level), is the outcome measuring whether a child has ever received an injectable vaccine ("Ever vaccinated"). As can be seen above in Table 2, 86% of children in the control group had reportedly received at least one injectable vaccine. Hence, the remaining room for improvement was relatively small.

In general, vaccination coverage rates in the sample - including in the control group - are substantially higher than at baseline. For example, at baseline, the estimated self-reported BCG and Measles coverage rates in Katsina and Zamfara for children aged 12 to 16 months were 24% and 15%, respectively. In contrast, the estimated BCG coverage rate in the control group at endline is 63%, and the estimated Measles coverage rate is 59%. IDinsight plans to investigate possible explanations for these substantial increases in reported vaccination coverage for the next deliverable.

## ROBUSTNESS CHECKS

The robustness checks carried out were as follows:

1. A first group of checks altered the control variables included in the regression ("Drop missing", "No control", "More controls"). The first drops observations with missing covariates, the second drops all control variables (i.e. estimates simple difference in means), and the third adds additional covariates.
2. A second group of checks modified the sample by dropping observations from certain settlements/clinics ("NI settle", "BL settle", and "No Damaga"). NI settle drops observations from settlements which New Incentives did not recognize as part of treatment catchments but IDinsight did. BL settle includes only settlements on baseline settlement lists. No Damaga drops one Zamfara clinic in which New Incentives was not able to operate for several months due to security.

[10] In the Pre-Analysis Plan (PAP), IDinsight specified that p-values will be corrected using the Free Step-Down Resampling Method proposed by Westfall and Young (1993). IDinsight computed the p-values using this method, and the p-values for the treatment coefficient remained substantially below a significance level of 1% for all outcomes (with the exception of "Ever vaccinated"). IDinsight will present adjusted p-values in the results table of the next deliverable.

3. One robustness check ("Drop dk") estimates the model when coding "Don't know" responses as missing – and dropping the respective observations – as opposed to coding "Don't Know" as 0 ("No"), as we do in the main specification.
4. Finally, the impact estimate for each outcome is calculated using vaccination card data instead of self-reported data. The main regression specification ("main") and a specification without any control variables ("none") are estimated using only data from child health cards (CHC) ("CHC main", and "CHC none"), as well as using data from all vaccination cards (including CHCs, campaign cards, etc.) ("Card main", and "Card none").[11] [12] Detailed explanations of each robustness check are provided in the footnotes of Tables 4 and 5.

Robustness checks were carried out for all outcomes. Detailed tables showing the results of all robustness checks can be found in the Appendix tables A1.1 through A11. The appendix tables only show treatment coefficients for ease of comparison to the above main results tables. The accompanying log file shows the full regression outputs for all robustness checks (including coefficients on covariates). Table A11 in the Appendix shows the estimation results for a logistic regression.

Tables 4.1, 4.2, 5.1, and 5.2 reproduce the robustness checks from the appendix for two outcomes: "BCG" and "Ever vaccinated" to illustrate general patterns emerging across all outcomes.

**Table 4.1: Robustness checks for outcome 'BCG'**

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.164*** | 0.166*** | 0.195*** | 0.179*** | 0.163*** | 0.165*** | 0.163*** |
| | [0.119,0.210] | [0.120,0.211] | [0.124,0.265] | [0.134,0.224] | [0.118,0.208] | [0.117,0.214] | [0.118,0.209] |
| Constant | 0.622*** | 0.634*** | 0.630*** | 0.522*** | 0.621*** | 0.589*** | 0.622*** |
| | [0.421,0.823] | [0.435,0.834] | [0.570,0.690] | [0.344,0.700] | [0.419,0.824] | [0.414,0.763] | [0.422,0.823] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.140 | 0.131 | 0.048 | 0.179 | 0.140 | 0.122 | 0.141 |

95% confidence intervals in brackets
(1) Main specification (including individual- and householdlevel covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)
$^{*}$ $p < 0.05$, $^{**}$ $p < 0.01$, $^{***}$ $p < 0.001$

[11] Child health cards (and other vaccination cards) were available for a much larger share of children than at baseline: For around 61% of all eligible children surveyed at endline at least one child health card was found.
[12] The card data based impact estimates shown here code the response for a child without a child health card / any vaccination card as a "No" (0). IDinsight also ran card based robustness checks which drop children without a card. The tables showing the outputs of these robustness checks can be found in the Appendix. Appendix tables A1.3, A2.3, and A3.3 report these results for primary outcomes.

**Table 4.2: Robustness checks for outcome 'BCG' (continued)**

| | (1) Drop dk | (2) CHC main | (3) CHC none | (4) Card main | (5) Card none |
|---|---|---|---|---|---|
| Treatment | 0.152*** | 0.273*** | 0.305*** | 0.272*** | 0.304*** |
| | [0.107,0.198] | [0.223,0.323] | [0.229,0.381] | [0.222,0.322] | [0.228,0.381] |
| Constant | 0.661*** | 0.419*** | 0.409*** | 0.427*** | 0.412*** |
| | [0.444,0.878] | [0.268,0.569] | [0.345,0.474] | [0.266,0.587] | [0.348,0.477] |
| Observations | 5027 | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.135 | 0.167 | 0.093 | 0.168 | 0.093 |

95% confidence intervals in brackets
(1) 'Don't know' responses for the outcome variable are treated as missing, and observations are dropped from the analysis (2) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (4) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (5) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Some general patterns emerge from robustness checks across all outcomes:

(1) The robustness checks confirm the finding from the primary results that the New Incentives program has a **substantial positive impact** on vaccination coverage rates. With the exception of "Ever vaccinated", the coefficients on the treatment dummy are large, and highly statistically significant across all robustness checks.
(2) With the exception of the robustness checks involving vaccination card data, the robustness checks suggest **relatively stable results** regarding the magnitude of New Incentives' impact. For example, the estimated treatment effect is 16.4pp for the outcome "BCG" in the main specification (see column 1, Table 4.1). Dropping observations with missing values on any individual- or household-level covariates from the sample (see column 2, Table 4.1) leaves the size of the coefficient unchanged. The same holds true for estimations that use an alternate sample (see columns 5-7, Table 4.1). Even when dropping over 1700 observations that come from settlements that were not on the baseline list, the coefficient remains basically unchanged (see column 6, Table 4.1).
(3) Across outcomes, the coefficient on treatment is a bit higher when estimating the model without any control variables (i.e. regressing the outcome on the treatment dummy only). For "BCG" (see Table 4.1), the coefficient is 3pp higher in this case. For "Ever vaccinated" (see Table 5.1), the coefficient is around 1pp higher. IDinsight will investigate this further.
(4) For all outcomes, the impact estimate is **substantially higher when using vaccination card data**. For "BCG", the coefficient on treatment is around twice as large as for the main specification when using card data (see columns 2-5, Table 4.2). In the case of "Ever vaccinated", the impact estimate ranges from around 15pp to 30pp when using vaccination card data, and becomes statistically significant (see columns 1-4, Table 5.2). A likely explanation for these higher impact estimates is higher availability and retention of child health cards in the treatment group since outcomes for children with no vaccination cards

are set equal to "0" (No).[13] IDinsight plans to investigate differential vaccination card retention rates in more detail for the next deliverable.

(5) IDinsight also estimated card-based impact estimates including only children with a child health card / at least one vaccination card in the analysis (see Appendix Tables A1.3, A2.3, A3.3, and A4.3 for results). For the outcomes "BCG", "Any Penta", and "Any PCV", the coefficient on treatment was only around 5pp (but still highly statistically significant). This lower impact estimate makes sense given that for the entire sample of children with at least one child health card, around 95% have a BCG (at least one Penta / at least one PCV) vaccine recorded on their child health card. For "Ever Measles", however, the card based impact estimates including only children with child health cards / any other cards are high. When including only children with child health cards, the impact estimate is 33pp (see Appendix A3.3). For the entire sample, around 85% of children with a child health card have a Measles vaccine recorded on it. However, this share varies a lot by treatment and control: in treatment, around 95% of children with a child health card have a Measles vaccine recorded on it, in control only around 61%. IDinsight plans to investigate potential explanations for this phenomenon for the next deliverable.

**Table 5.1: Robustness checks for outcome 'Ever vaccinated'**

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.0246 | 0.0192 | 0.0338 | 0.0378* | 0.0246 | 0.0297 | 0.0246 |
| | [-0.006,0.055] | [-0.010,0.049] | [-0.012,0.080] | [0.008,0.068] | [-0.005,0.054] | [-0.004,0.063] | [-0.006,0.055] |
| Constant | 0.739*** | 0.752*** | 0.857*** | 0.671*** | 0.739*** | 0.749*** | 0.739*** |
| | [0.608,0.870] | [0.621,0.884] | [0.820,0.893] | [0.552,0.789] | [0.606,0.872] | [0.608,0.891] | [0.608,0.870] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.071 | 0.057 | 0.002 | 0.108 | 0.071 | 0.066 | 0.071 |

95% confidence intervals in brackets
(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

[13] In the treatment group, a child health card was found for 73% of children. In the control, a child health card was only found for 45% of children.

**Table 5.2: Robustness checks for outcome 'Ever vaccinated' (continued)**

| | (1) CHC main | (2) CHC none | (3) Card main | (4) Card none |
|---|---|---|---|---|
| Treatment | 0.259*** | 0.290*** | 0.147*** | 0.156*** |
| | [0.209,0.308] | [0.214,0.366] | [0.106,0.189] | [0.091,0.221] |
| Constant | 0.444*** | 0.436*** | 0.645*** | 0.617*** |
| | [0.284,0.604] | [0.373,0.500] | [0.454,0.835] | [0.563,0.670] |
| Observations | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.161 | 0.086 | 0.098 | 0.028 |

95% confidence intervals in brackets
(1) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (2) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (4) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

## QUALITY OF SELF-REPORTS (ONE PRELIMINARY METRIC)

IDinsight will provide a more detailed analysis of the quality of self-reports in the next deliverable. In this section, we show one useful statistic: the rate of agreement between self-reported BCG vaccines and BCG scars in treatment and control groups. We provide basic interpretation of these results here but stress that additional analysis on self-report quality and implications for the impact estimate is still forthcoming.

Table C shows the results of a hypothesis test for the difference in the proportion of children with a BCG scar whose caregivers report a BCG vaccine between treatment and control group. As is clear from the table, nearly all caregivers (98%) in treatment and in control reported a BCG vaccine when their child had a BCG scar. There is no significant difference between treatment and control. This statistic alone, therefore, does not suggest a differential reporting rate in treatment and control. However, we advise caution in drawing definitive conclusions before we can run additional analysis on this question. Moreover, since the scar itself may aid caregivers' recall, we may not be able to directly generalize this analysis to other vaccines.

**Table C: Share of children with a BCG scar whose caregivers report a BCG vaccine**

Two-sample test of proportions — **Control:** Number of obs = 867; **Treatment:** Number of obs = 1868

| Variable | Mean | Std. Err. | z | P>\|z\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| Control | .9780854 | .0049722 | | | .9683401 | .9878306 |
| Treatment | .982334 | .003048 | | | .9763601 | .9883079 |
| diff | -.0042487 | .005832 | | | -.0156793 | .0071819 |
| | under Ho: | .0056122 | -0.76 | 0.449 | | |

# CLINIC DATA ANALYSIS

## DATA SOURCES AND SAMPLE

The dataset used for the clinic tally-sheets analysis is a combination of two sets of digitized tally-sheet records collected during the midline and endline phases of the project. Vaccination tally-sheets are maintained by the staff of a given clinic. Each tally-sheet record book contains a page for every month along with columns for each vaccine that is distributed by the clinic. As staff administer a vaccine during a month, they draw tallies under the relevant vaccine column on the page for that month. These tallies are then totaled at the end of the month. During digitization, enumerators both noted the written totals and re-counted individual tallies. At midline, tally-sheet data were collected for the period March 2017-February 2019. At endline, tally-sheet data were collected for the period March 2019-December 2019 (December data is excluded from this analysis since the survey took place in many clinics during December). Data were collected in 175 clinics at midline and 160 clinics at endline. This includes all clinics that were reachable and maintained records.

## ESTIMATION STRATEGY

The clinics tally-sheet analysis estimates the following difference-in-differences specification:

$$\boldsymbol{Y_{jt}} = \beta_0 + \beta_1 * T_j + \beta_2 * post + \beta_3 * T_j * post + \lambda_l + \varepsilon_{jt}$$

- $Y_{jt}$ is the volume of a given vaccine distributed in clinic j during period t.
- $T_j$ is the treatment status of clinic cluster j
- $Post$ is a dummy indicating observations in the post-treatment period
- $\lambda_l$ is a vector of dummies for LGA (Local Government Area)
- $\varepsilon_{jt}$ is the error term for clinic j period t clustered at the clinic cluster-level

As an alternative specification, we also estimate the below ANCOVA regression:

$$\boldsymbol{Y_{j,post}} = \beta_0 + \beta_1 * T_j + \beta_2 * Y_{j,pre} + \varepsilon_{jt}$$

- $Y_{j,post}$ is the volume of a given vaccine distributed in clinic j during post-treatment period
- $Y_{j,pre}$ is the volume of a given vaccine distributed in clinic j during the pre-treatment period
- $T_j$ is the treatment status of clinic cluster j

## PRELIMINARY STUDY RESULTS

### PRIMARY RESULTS (MAIN CLINICS SPECIFICATION)

**Figure 1: Clinic Tally Sheets Results**

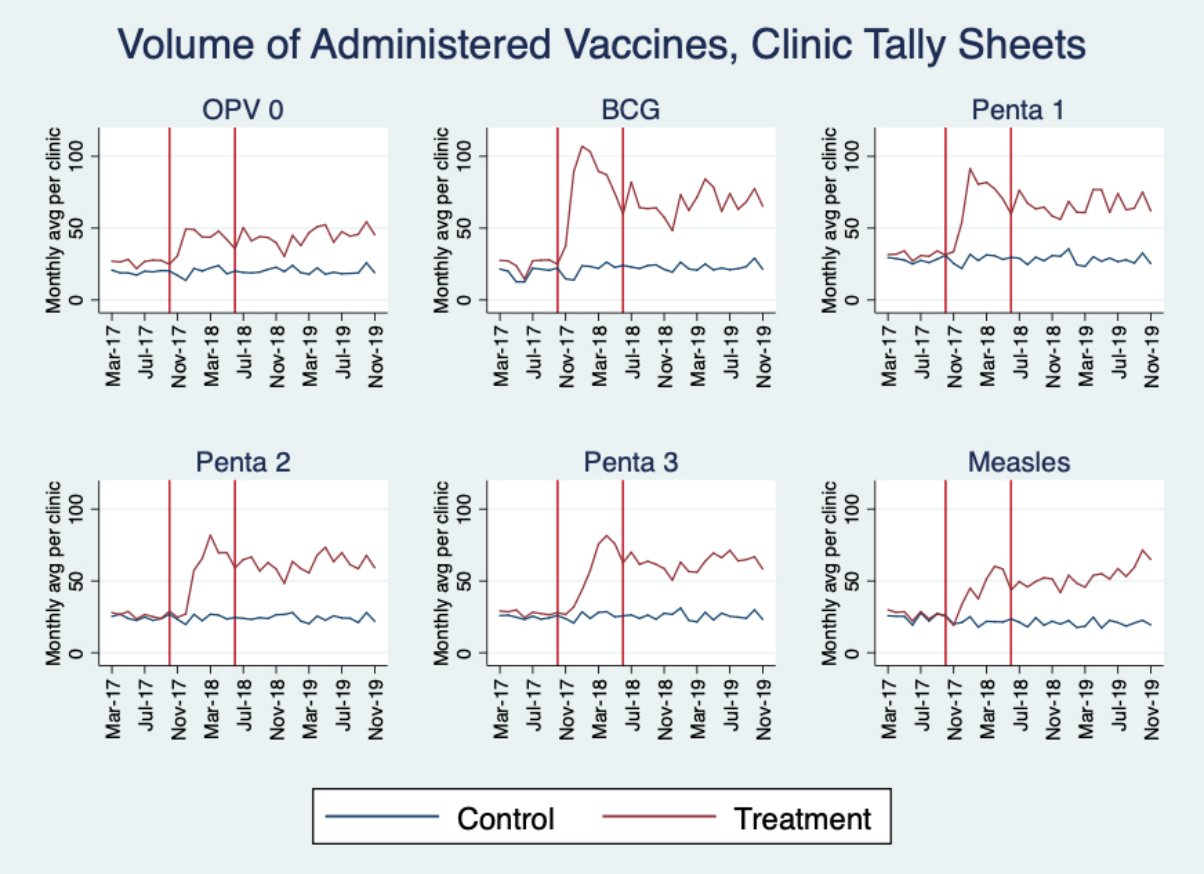


Figure 1 graphically presents the treatment effect of the New Incentives - ABAE program as captured in clinic tally sheets. For each of the graphs, the x-axis represents individual months and the y-axis represents the average number of distributed vaccines (as recorded) per clinic in a given month. The blue line represents the control group, while the red line represents the treatment group. The vertical red lines represent the start and end of the program ramp-up phase. New Incentives was not operating in the study clinics in months prior to Oct 2017 and was fully operational in all study clinics by July 2018, the beginning of the RCT window. Below, we refer to the period prior to Oct 2017 (before any clinics could receive the program) as period 1 and the RCT window (during which all treatment clinics were eligible for the program) as period 3.

Table 6 reports results from a difference-in-differences regression of recorded monthly totals (as counted by enumerators). Column 4 presents the difference-in-differences impact estimate of New Incentives' program on the primary outcomes of interest. In other words, the number in column 4 is the difference in the outcome's change over time between the treatment and control groups.[14]

[14] Table A12 in the appendix reports results from the ANCOVA regression, which are generally similar.

**Table 6: Effect of New Incentives' Program on the Change in the Volume of Vaccinations**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Control Mean** (pre-program) | Mean **Difference** Treatment vs. Control (pre-program) | Mean **Change in Control** (pre to post-program) | Mean **Additional Change in Treatment** |
| OPV0 count | 20.75 | 10.24** | 0.48 | 17.62*** |
| | [16.21,25.30] | [0.81, 19.66] | [-3.85, 4.82] | [9.06, 26.18] |
| | | (0.034) | (0.826) | (0.000) |
| BCG count | 20.39 | 6.32 | 3.72 | 39.13*** |
| | [16.23,24.55] | [-3.93,16.56] | [-1.31, 8.75] | [27.49, 50.78] |
| | | (0.225) | (0.146) | (0.000) |
| Penta 1 count | 29.37 | 2.85 | -0.00 | 34.40*** |
| | [23.76,34.98] | [-6.40,12.10] | [-5.60, 5.59] | [23.87, 44.94] |
| | | (0.544) | (0.999) | (0.000) |
| Penta 2 count | 25.51 | 1.04 | -0.22 | 35.75*** |
| | [20.58,30.44] | [-7.39, 9.47] | [-5.45, 5.02] | [25.71, 45.80] |
| | | (0.809) | (0.935) | (0.000) |
| Penta 3 count | 26.44 | 1.45 | -0.07 | 34.63*** |
| | [20.87,32.00] | [-7.30, 10.20] | [-5.40, 5.26] | [24.37, 44.89] |
| | | (0.744) | (0.980) | (0.000) |
| Measles count | 26.47 | 0.94 | -5.43** | 32.26*** |
| | [21.00,31.94] | [-7.47,9.34] | [-10.67, -0.19] | [23.20, 41.32] |
| | | (0.826) | (0.042) | (0.000) |

Notes: This table summarizes Difference in Differences estimates of treatment effects. Outcome variables are listed on the left. Tally sheets are so named because clinic staff fills them out by adding one tally mark for each vaccination given on a given day. Each tally sheet covers one month. Staff are supposed to total the tallies for all days in the month before filing the sheet. Our "count" outcome refers to data collected by enumerators' counting individual tallies to generate their own monthly total, while "total" refers to data collected by enumerators' recording the totals already noted by clinic staff on the sheet. For each outcome variable, we report the coefficients of interest, with their 95% confidence interval in brackets. Below the confidence interval is the unadjusted p-value in parentheses. Column (1) reports the mean and standard deviation of the control group in period 1 (pre-program). Column (2) reports the difference (or, usually, lack thereof) between treatment and control clinics in period 1. Column (3) reports the difference in volumes before the start of the program (period 1) and during the program (period 3) in control clinics. Column (4) reports the additional increase in vaccination volumes between periods 1 and 3 at treatment clinics, which is the impact of New Incentives' program. The unit of observation is the clinic for all outcome variables.

Overall, both Figure 1 and Table 2 show substantial impact of the program. As at midline, we suspect that the program increases both actual immunization volumes and the quality of clinics' record keeping. We cannot parse these effects with certainty. As at midline, however, we find changes in volume so large that they are highly unlikely to be explained by improvements in record-keeping alone.[15] We expect that there is a meaningful effect on actual immunization volumes, consistent with the results found in the household analysis.

[15] At midline, we estimated that the absolute maximum increase in immunization volumes possible to explain based on record-keeping alone was a doubling. Results shown here – as at midline – are consistent with doubling or greater.

# APPENDIX

Table A1.1: Robustness checks for outcome 'BCG'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.164*** | 0.166*** | 0.195*** | 0.179*** | 0.163*** | 0.165*** | 0.163*** |
| | [0.119,0.210] | [0.120,0.211] | [0.124,0.265] | [0.134,0.224] | [0.118,0.208] | [0.117,0.214] | [0.118,0.209] |
| Constant | 0.622*** | 0.634*** | 0.630*** | 0.522*** | 0.621*** | 0.589*** | 0.622*** |
| | [0.421,0.823] | [0.435,0.834] | [0.570,0.690] | [0.344,0.700] | [0.419,0.824] | [0.414,0.763] | [0.422,0.823] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.140 | 0.131 | 0.048 | 0.179 | 0.140 | 0.122 | 0.141 |

95% confidence intervals in brackets

(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A1.2: Robustness checks for outcome 'BCG' (continued)

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | Drop dk | CHC main | CHC none | Card main | Card none |
| Treatment | 0.152*** | 0.273*** | 0.305*** | 0.272*** | 0.304*** |
| | [0.107,0.198] | [0.223,0.323] | [0.229,0.381] | [0.222,0.322] | [0.228,0.381] |
| Constant | 0.661*** | 0.419*** | 0.409*** | 0.427*** | 0.412*** |
| | [0.444,0.878] | [0.268,0.569] | [0.345,0.474] | [0.266,0.587] | [0.348,0.477] |
| Observations | 5027 | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.135 | 0.167 | 0.093 | 0.168 | 0.093 |

95% confidence intervals in brackets

(1) 'Don't know' responses for the outcome variable are treated as missing, and observations are dropped from the analysis (2) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (4) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (5) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A1.3: Additional robustness checks for outcome 'BCG': Only include children with card

| | (1) CHC main | (2) CHC none | (3) Card main | (4) Card none |
|---|---|---|---|---|
| Treatment | 0.0622*** | 0.0616*** | 0.0614*** | 0.0611*** |
| | [0.039,0.085] | [0.037,0.086] | [0.039,0.084] | [0.037,0.085] |
| Constant | 0.908*** | 0.917*** | 0.905*** | 0.918*** |
| | [0.844,0.971] | [0.894,0.940] | [0.843,0.967] | [0.895,0.941] |
| Observations | 3131 | 3140 | 3144 | 3153 |
| Adjusted $R^2$ | 0.026 | 0.021 | 0.026 | 0.020 |

95% confidence intervals in brackets

(1) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; children with no CHC are dropped (2) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; children with no CHC are dropped (3) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; children with no card are dropped (4) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; children with no card are dropped

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A2.1: Robustness checks for outcome 'Any Penta'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.209*** | 0.207*** | 0.234*** | 0.219*** | 0.210*** | 0.207*** | 0.207*** |
| | [0.162,0.256] | [0.160,0.253] | [0.157,0.311] | [0.174,0.264] | [0.163,0.256] | [0.154,0.259] | [0.160,0.254] |
| Constant | 0.381*** | 0.411*** | 0.542*** | 0.284** | 0.380*** | 0.291** | 0.378*** |
| | [0.190,0.572] | [0.211,0.611] | [0.477,0.606] | [0.111,0.457] | [0.187,0.573] | [0.082,0.500] | [0.188,0.567] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.173 | 0.164 | 0.061 | 0.208 | 0.173 | 0.150 | 0.174 |

95% confidence intervals in brackets

(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A2.2: Robustness checks for outcome 'Any Penta' (continued)

| | (1) Drop dk | (2) CHC main | (3) CHC none | (4) Card main | (5) Card none |
|---|---|---|---|---|---|
| Treatment | 0.191*** | 0.264*** | 0.298*** | 0.263*** | 0.297*** |
| | [0.142,0.240] | [0.214,0.313] | [0.223,0.373] | [0.214,0.312] | [0.222,0.373] |
| Constant | 0.490*** | 0.430*** | 0.410*** | 0.436*** | 0.413*** |
| | [0.291,0.690] | [0.272,0.589] | [0.347,0.473] | [0.276,0.595] | [0.350,0.476] |
| Observations | 4894 | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.169 | 0.164 | 0.089 | 0.164 | 0.089 |

95% confidence intervals in brackets

(1) 'Don't know' responses for the outcome variable are treated as missing, and observations are dropped from the analysis (2) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (4) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (5) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

$^{*}$ $p < 0.05$, $^{**}$ $p < 0.01$, $^{***}$ $p < 0.001$

Table A2.3: Additional robustness checks for outcome 'Any Penta': Only include children with card

| | (1) CHC main | (2) CHC none | (3) Card main | (4) Card none |
|---|---|---|---|---|
| Treatment | 0.0475*** | 0.0520*** | 0.0469*** | 0.0515*** |
| | [0.025,0.070] | [0.027,0.077] | [0.024,0.069] | [0.027,0.076] |
| Constant | 0.938*** | 0.918*** | 0.934*** | 0.919*** |
| | [0.860,1.015] | [0.895,0.941] | [0.860,1.008] | [0.896,0.942] |
| Observations | 3131 | 3140 | 3145 | 3154 |
| Adjusted $R^2$ | 0.033 | 0.013 | 0.032 | 0.013 |

95% confidence intervals in brackets

(1) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; children with no CHC are dropped (2) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; children with no CHC are dropped (3) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; children with no card are dropped (4) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; children with no card are dropped

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3.1: Robustness checks for outcome 'Any Measles'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.143*** | 0.142*** | 0.154*** | 0.160*** | 0.145*** | 0.160*** | 0.142*** |
| | [0.105,0.182] | [0.102,0.182] | [0.091,0.218] | [0.123,0.197] | [0.107,0.184] | [0.117,0.202] | [0.104,0.181] |
| Constant | 0.324*** | 0.345*** | 0.589*** | 0.233*** | 0.320*** | 0.332*** | 0.322*** |
| | [0.195,0.453] | [0.209,0.481] | [0.543,0.636] | [0.117,0.349] | [0.191,0.450] | [0.155,0.509] | [0.193,0.450] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.112 | 0.100 | 0.027 | 0.147 | 0.114 | 0.104 | 0.112 |

95% confidence intervals in brackets

(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3.2: Robustness checks for outcome 'Any Measles' (continued)

| | (1) Drop dk | (2) CHC main | (3) CHC none | (4) Card main | (5) Card none |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Treatment | 0.140*** | 0.391*** | 0.419*** | 0.319*** | 0.344*** |
| | [0.100,0.180] | [0.343,0.439] | [0.354,0.483] | [0.273,0.365] | [0.278,0.411] |
| Constant | 0.410*** | 0.300*** | 0.276*** | 0.443*** | 0.372*** |
| | [0.275,0.546] | [0.149,0.452] | [0.228,0.324] | [0.285,0.601] | [0.321,0.423] |
| Observations | 4906 | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.107 | 0.219 | 0.171 | 0.172 | 0.118 |

95% confidence intervals in brackets

(1) 'Don't know' responses for the outcome variable are treated as missing, and observations are dropped from the analysis (2) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (4) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (5) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3.3: Additional robustness checks for outcome 'Any Measles': Only include children with card

| | (1) CHC main | (2) CHC none | (3) Card main | (4) Card none |
|---|---|---|---|---|
| Treatment | 0.330*** | 0.333*** | 0.225*** | 0.228*** |
| | [0.291,0.370] | [0.291,0.376] | [0.194,0.256] | [0.196,0.260] |
| Constant | 0.638*** | 0.618*** | 0.772*** | 0.727*** |
| | [0.473,0.803] | [0.577,0.659] | [0.642,0.903] | [0.698,0.757] |
| Observations | 3131 | 3140 | 3341 | 3350 |
| Adjusted $R^2$ | 0.188 | 0.185 | 0.109 | 0.109 |

95% confidence intervals in brackets

(1) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; children with no CHC are dropped (2) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; children with no CHC are dropped (3) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; children with no card are dropped (4) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; children with no card are dropped

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A4.1: Robustness checks for outcome 'Any PCV'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.223*** | 0.221*** | 0.249*** | 0.233*** | 0.223*** | 0.213*** | 0.221*** |
| | [0.177,0.269] | [0.174,0.267] | [0.171,0.328] | [0.188,0.278] | [0.177,0.268] | [0.161,0.265] | [0.175,0.267] |
| Constant | 0.282** | 0.307** | 0.495*** | 0.183* | 0.283** | 0.159 | 0.278** |
| | [0.096,0.468] | [0.116,0.497] | [0.431,0.560] | [0.012,0.353] | [0.096,0.471] | [-0.065,0.383] | [0.093,0.463] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.177 | 0.167 | 0.066 | 0.212 | 0.178 | 0.154 | 0.178 |

95% confidence intervals in brackets

(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A4.2: Robustness checks for outcome 'Any PCV' (continued)

| | (1) CHC main | (2) CHC none | (3) Card main | (4) Card none |
|---|---|---|---|---|
| Treatment | 0.265*** | 0.299*** | 0.264*** | 0.298*** |
| | [0.216,0.315] | [0.223,0.374] | [0.215,0.314] | [0.222,0.374] |
| Constant | 0.429*** | 0.409*** | 0.435*** | 0.412*** |
| | [0.269,0.590] | [0.346,0.472] | [0.273,0.597] | [0.349,0.475] |
| Observations | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.165 | 0.089 | 0.166 | 0.089 |

95% confidence intervals in brackets

(1) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (2) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (4) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A4.3: Additional robustness checks for outcome 'Any PCV': Only include children with card

| | (1) CHC main | (2) CHC none | (3) Card main | (4) Card none |
|---|---|---|---|---|
| Treatment | 0.0503*** | 0.0536*** | 0.0495*** | 0.0531*** |
| | [0.028,0.073] | [0.028,0.079] | [0.027,0.072] | [0.028,0.078] |
| Constant | 0.929*** | 0.916*** | 0.926*** | 0.917*** |
| | [0.854,1.004] | [0.893,0.939] | [0.854,0.997] | [0.894,0.940] |
| Observations | 3131 | 3140 | 3145 | 3154 |
| Adjusted $R^2$ | 0.033 | 0.013 | 0.033 | 0.013 |

95% confidence intervals in brackets

(1) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; children with no CHC are dropped (2) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; children with no CHC are dropped (3) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; children with no card are dropped (4) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; children with no card are dropped

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A5.1: Robustness checks for outcome 'Full (loose)'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.255*** | 0.259*** | 0.274*** | 0.267*** | 0.256*** | 0.267*** | 0.253*** |
| | [0.211,0.298] | [0.214,0.303] | [0.200,0.348] | [0.226,0.308] | [0.213,0.300] | [0.219,0.316] | [0.209,0.296] |
| Constant | 0.190* | 0.197* | 0.402*** | 0.0966 | 0.186* | 0.160 | 0.187* |
| | [0.046,0.335] | [0.046,0.349] | [0.347,0.457] | [-0.033,0.226] | [0.041,0.331] | [-0.028,0.349] | [0.043,0.331] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.176 | 0.169 | 0.074 | 0.208 | 0.177 | 0.155 | 0.177 |

95% confidence intervals in brackets

(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A5.2: Robustness checks for outcome 'Full (loose)' (continued)

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | Drop dk | CHC main | CHC none | Card main | Card none |
| Treatment | 0.260*** | 0.377*** | 0.407*** | 0.352*** | 0.384*** |
| | [0.214,0.307] | [0.330,0.424] | [0.343,0.471] | [0.305,0.400] | [0.318,0.450] |
| Constant | 0.275** | 0.299*** | 0.268*** | 0.338*** | 0.294*** |
| | [0.105,0.444] | [0.163,0.436] | [0.220,0.316] | [0.204,0.471] | [0.243,0.344] |
| Observations | 4852 | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.185 | 0.209 | 0.162 | 0.198 | 0.144 |

95% confidence intervals in brackets

(1) 'Don't know' responses for the outcome variable are treated as missing, and observations are dropped from the analysis (2) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (4) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (5) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A6.1: Robustness checks for outcome 'Full (strict)'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.271*** | 0.275*** | 0.288*** | 0.281*** | 0.273*** | 0.284*** | 0.270*** |
| | [0.228,0.315] | [0.229,0.320] | [0.216,0.360] | [0.240,0.323] | [0.229,0.316] | [0.235,0.333] | [0.227,0.314] |
| Constant | 0.00236 | 0.00734 | 0.254*** | -0.0612 | -0.00223 | -0.0975 | 0.00386 |
| | [-0.110,0.114] | [-0.111,0.126] | [0.206,0.301] | [-0.168,0.045] | [-0.114,0.110] | [-0.206,0.011] | [-0.108,0.116] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.177 | 0.172 | 0.083 | 0.194 | 0.178 | 0.161 | 0.177 |

95% confidence intervals in brackets

(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A6.2: Robustness checks for outcome 'Full (strict)' (continued)

| | (1) Drop dk | (2) CHC main | (3) CHC none | (4) Card main | (5) Card none |
|---|---|---|---|---|---|
| Treatment | 0.285*** | 0.371*** | 0.400*** | 0.354*** | 0.384*** |
| | [0.240,0.329] | [0.323,0.418] | [0.335,0.465] | [0.306,0.402] | [0.317,0.452] |
| Constant | 0.0219 | 0.301*** | 0.259*** | 0.326*** | 0.278*** |
| | [-0.113,0.157] | [0.173,0.430] | [0.211,0.308] | [0.202,0.449] | [0.227,0.328] |
| Observations | 4941 | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.198 | 0.209 | 0.156 | 0.202 | 0.144 |

95% confidence intervals in brackets

(1) 'Don't know' responses for the outcome variable are treated as missing, and observations are dropped from the analysis (2) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (4) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (5) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A7.1: Robustness checks for outcome 'Total (no PCV)'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 1.059*** | 1.060*** | 1.167*** | 1.123*** | 1.061*** | 1.068*** | 1.052*** |
| | [0.861,1.257] | [0.857,1.263] | [0.819,1.514] | [0.934,1.312] | [0.865,1.258] | [0.847,1.288] | [0.853,1.250] |
| Constant | 1.459*** | 1.567*** | 2.455*** | 1.003** | 1.454*** | 1.160** | 1.452*** |
| | [0.770,2.147] | [0.853,2.281] | [2.186,2.724] | [0.401,1.605] | [0.759,2.148] | [0.463,1.856] | [0.766,2.137] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.223 | 0.212 | 0.085 | 0.268 | 0.224 | 0.201 | 0.225 |

95% confidence intervals in brackets

(1) Main specification (including individual- and householdlevel covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A7.2: Robustness checks for outcome 'Total (no PCV)' (continued)

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | Drop dk | CHC main | CHC none | Card main | Card none |
| Treatment | 1.016*** | 1.518*** | 1.680*** | 1.443*** | 1.603*** |
| | [0.802,1.229] | [1.278,1.758] | [1.320,2.041] | [1.206,1.680] | [1.240,1.967] |
| Constant | 1.700*** | 1.942*** | 1.815*** | 2.098*** | 1.922*** |
| | [0.944,2.457] | [1.180,2.704] | [1.521,2.109] | [1.324,2.872] | [1.626,2.218] |
| Observations | 4524 | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.217 | 0.195 | 0.122 | 0.192 | 0.114 |

95% confidence intervals in brackets

(1) 'Don't know' responses for the outcome variable are treated as missing, and observations are dropped from the analysis (2) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (4) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (5) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A8.1: Robustness checks for outcome 'Total (with PCV)'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 1.801*** | 1.801*** | 1.972*** | 1.895*** | 1.804*** | 1.796*** | 1.790*** |
| | [1.478,2.125] | [1.469,2.134] | [1.408,2.535] | [1.587,2.204] | [1.483,2.124] | [1.430,2.161] | [1.466,2.114] |
| Constant | 1.742*** | 1.912*** | 3.572*** | 1.028* | 1.728** | 1.224* | 1.734*** |
| | [0.725,2.759] | [0.855,2.970] | [3.137,4.007] | [0.131,1.925] | [0.705,2.751] | [0.046,2.402] | [0.721,2.748] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.227 | 0.216 | 0.091 | 0.269 | 0.228 | 0.202 | 0.228 |

95% confidence intervals in brackets

(1) Main specification (including individual- and householdlevel covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A8.2: Robustness checks for outcome 'Total (with PCV)' (continued)

| | (1) CHC main | (2) CHC none | (3) Card main | (4) Card none |
|---|---|---|---|---|
| Treatment | 2.379*** | 2.639*** | 2.302*** | 2.560*** |
| | [1.992,2.766] | [2.055,3.223] | [1.918,2.685] | [1.972,3.148] |
| Constant | 3.117*** | 2.939*** | 3.283*** | 3.054*** |
| | [1.914,4.321] | [2.461,3.417] | [2.065,4.502] | [2.573,3.535] |
| Observations | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.191 | 0.116 | 0.190 | 0.112 |

95% confidence intervals in brackets

(1) 'Don't know' responses for the outcome variable are treated as missing, and observations are dropped from the analysis (2) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (4) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (5) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A9.1: Robustness checks for outcome 'Ever vaccinated'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.0246 | 0.0192 | 0.0338 | 0.0378* | 0.0246 | 0.0297 | 0.0246 |
| | [-0.006,0.055] | [-0.010,0.049] | [-0.012,0.080] | [0.008,0.068] | [-0.005,0.054] | [-0.004,0.063] | [-0.006,0.055] |
| Constant | 0.739*** | 0.752*** | 0.857*** | 0.671*** | 0.739*** | 0.749*** | 0.739*** |
| | [0.608,0.870] | [0.621,0.884] | [0.820,0.893] | [0.552,0.789] | [0.606,0.872] | [0.608,0.891] | [0.608,0.870] |
| Observations | 5141 | 4827 | 5156 | 5141 | 5106 | 3390 | 5121 |
| Adjusted $R^2$ | 0.071 | 0.057 | 0.002 | 0.108 | 0.071 | 0.066 | 0.071 |

95% confidence intervals in brackets

(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A9.2: Robustness checks for outcome 'Ever vaccinated' (continued)

| | (1) CHC main | (2) CHC none | (3) Card main | (4) Card none |
|---|---|---|---|---|
| Treatment | 0.259*** | 0.290*** | 0.147*** | 0.156*** |
| | [0.209,0.308] | [0.214,0.366] | [0.106,0.189] | [0.091,0.221] |
| Constant | 0.444*** | 0.436*** | 0.645*** | 0.617*** |
| | [0.284,0.604] | [0.373,0.500] | [0.454,0.835] | [0.563,0.670] |
| Observations | 5141 | 5156 | 5141 | 5156 |
| Adjusted $R^2$ | 0.161 | 0.086 | 0.098 | 0.028 |

95% confidence intervals in brackets

(1) Main regression specification is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (2) Regression specification with no controls is estimated using information from child health cards (CHC) to measure the outcome; if a child had no CHC, the outcome is set equal to 0 ('No') (3) Main regression specification is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No') (4) Regression specification with no controls is estimated using information from all vaccination cards (including CHC) to measure the outcome; if a child had no card, the outcome is set equal to 0 ('No')

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A10.1: Robustness checks for outcome 'BCG scar'

| | (1) Primary Specification | (2) Drop missing | (3) No controls | (4) More controls | (5) NI settle | (6) BL settle | (7) No Damaga |
|---|---|---|---|---|---|---|---|
| Treatment | 0.217*** | 0.223*** | 0.243*** | 0.228*** | 0.215*** | 0.220*** | 0.216*** |
| | [0.171,0.264] | [0.176,0.270] | [0.176,0.311] | [0.182,0.275] | [0.170,0.260] | [0.175,0.266] | [0.169,0.262] |
| Constant | 0.251*** | 0.276*** | 0.415*** | 0.186** | 0.256*** | 0.304*** | 0.249*** |
| | [0.138,0.363] | [0.168,0.383] | [0.368,0.461] | [0.074,0.298] | [0.145,0.367] | [0.161,0.447] | [0.136,0.362] |
| Observations | 4912 | 4650 | 4927 | 4912 | 4879 | 3240 | 4892 |
| Adjusted $R^2$ | 0.126 | 0.120 | 0.058 | 0.138 | 0.127 | 0.115 | 0.127 |

95% confidence intervals in brackets

(1) Main specification (including individual- and household-level covariates (and dummies for missing values), baseline coverage rate, state dummies, and strata dummies) (2) Observations with missing values on any individual- or household-level covariate are dropped from the main specification. (3) Only treatment dummy is included in regression; no control variables (4) Two additional covariates are added to the main specification: a) Whether the caregiver ever received non-cash incentives for vaccinating; b) Whether the caregiver has heard positive messages about vaccination from local leaders (5) Settlements New Incentives does not recognize as part of the catchment are dropped (6) Only settlements that were on the baseline settlement list are included (7) Damaga PHC is excluded from the analysis (New Incentives was not able to operate there for several months due to security)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A11: Logistic regression specification for all outcomes

| | (1) BCG | (2) Any Penta | (3) Any Measles | (4) Any PCV | (5) Full (loose) | (6) Full (strict) | (7) Total (no PCV) | (8) Total (with PCV) | (9) Ever vaccinated | (10) BCG scar |
|---|---|---|---|---|---|---|---|---|---|---|
| Treat | 0.987*** | 1.117*** | 0.743*** | 1.118*** | 1.187*** | 1.276*** | 0.619*** | 0.610*** | 0.285 | 0.963*** |
| | [0.729,1.246] | [0.881,1.352] | [0.545,0.941] | [0.893,1.343] | [0.974,1.401] | [1.049,1.503] | [0.355,0.884] | [0.345,0.875] | [-0.013,0.583] | [0.752,1.173] |
| Constant | 0.185 | -0.865 | -1.043*** | -1.265** | -1.542*** | -2.344*** | 0.413 | 0.425 | 0.589 | -1.131*** |
| | [-0.898,1.268] | [-1.739,0.008] | [-1.613,-0.473] | [-2.095,-0.436] | [-2.172,-0.912] | [-2.931,-1.757] | [-0.674,1.499] | [-0.665,1.514] | [-0.459,1.637] | [-1.664,-0.598] |
| Obs. | 5141 | 5141 | 5141 | 5141 | 5141 | 5141 | 5141 | 5141 | 5141 | 4898 |

95% confidence intervals in brackets

Logistic regression of main specification

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A12: Effect of New Incentives' Program on the Change in the Volume of Vaccinations (ANCOVA)

| | (1) | (2) |
|---|---|---|
| | Control Mean | Treatment |
| OPV 0 count | 20.75 | 18.17*** |
| | [16.21,25.30] | [10.93, 25.40] |
| | | (0.000) |
| BCG count | 20.39 | 41.09*** |
| | [16.23,24.55] | [31.16, 51.03] |
| | | (0.000) |
| Penta 1 count | 29.37 | 36.85*** |
| | [23.76,34.98] | [27.54,46.16] |
| | | (0.000) |
| Penta 2 count | 25.51 | 37.95*** |
| | [20.58,30.44] | [28.84,47.06] |
| | | (0.000) |
| Penta 3 count | 26.44 | 36.72*** |
| | [20.87,32.00] | [27.44,46.00] |
| | | (0.000) |
| Measles | 26.47 | 33.79*** |
| | [21.00,31.94] | [25.50,42.08] |
| | | (0.000) |

Notes: This table summarizes ANCOVA estimates of treatment effects. Outcome variables are listed on the left. For each outcome variable, we report the coefficients of interest, with their 95% confidence interval in brackets. Below the confidence interval is the unadjusted p-value in parentheses. Column (1) reports the mean and standard deviation of the control group. Column (2) reports the ANCOVA treatment effect, i.e. the estimate of the causal effect of New Incentives' program on the outcome of interest. * denotes significance at 10 pct., ** at 5 pct., and *** at 1 pct. level. Asterisks are based on the maximum of the unadjusted p-value.