

Performance Contingent Incentives to Promote Behavior Change in Nigerian Health Facilities

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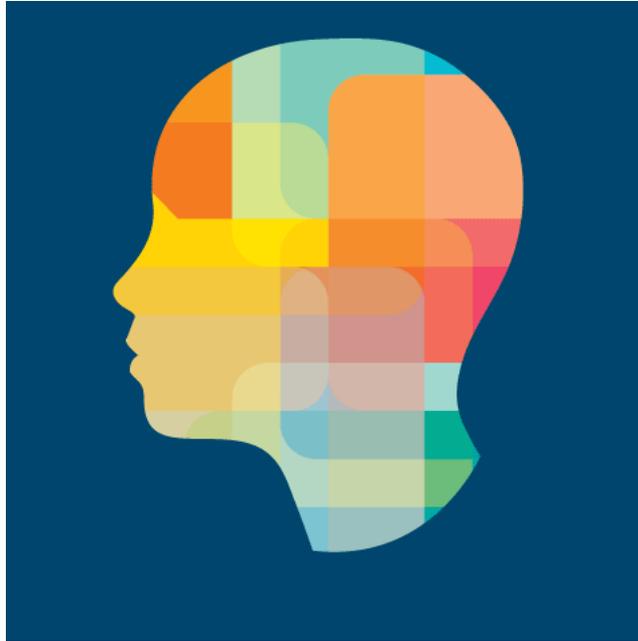
2015



MIND, SOCIETY,
AND BEHAVIOR

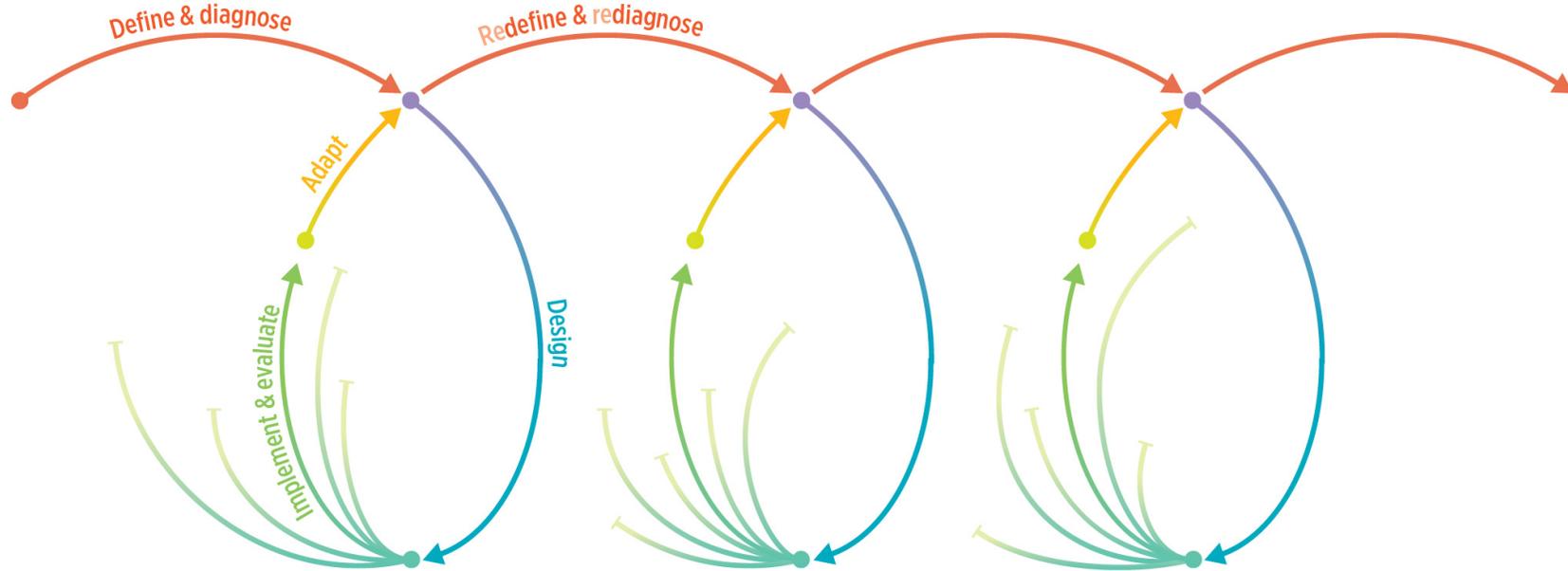


WORLD BANK GROUP



Global INsights Initiative (GINI)

Embedding diagnosis and experimentation into implementation



Source: WDR 2015 team.

GINI current focus areas

1. Education – reducing dropout rates
2. Household finance – increasing savings, financial inclusion, debt management
3. Social norms regarding gender
4. Improving organizational effectiveness – governance, policing, professionalism

Policy motivation

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- Obvious implications for efficiency and cost-effectiveness analyses
- But also matters for accountability and 'leakage'
- Hence 'real-time' public expenditure tracking, but need to incentivize participation efforts

Research motivation

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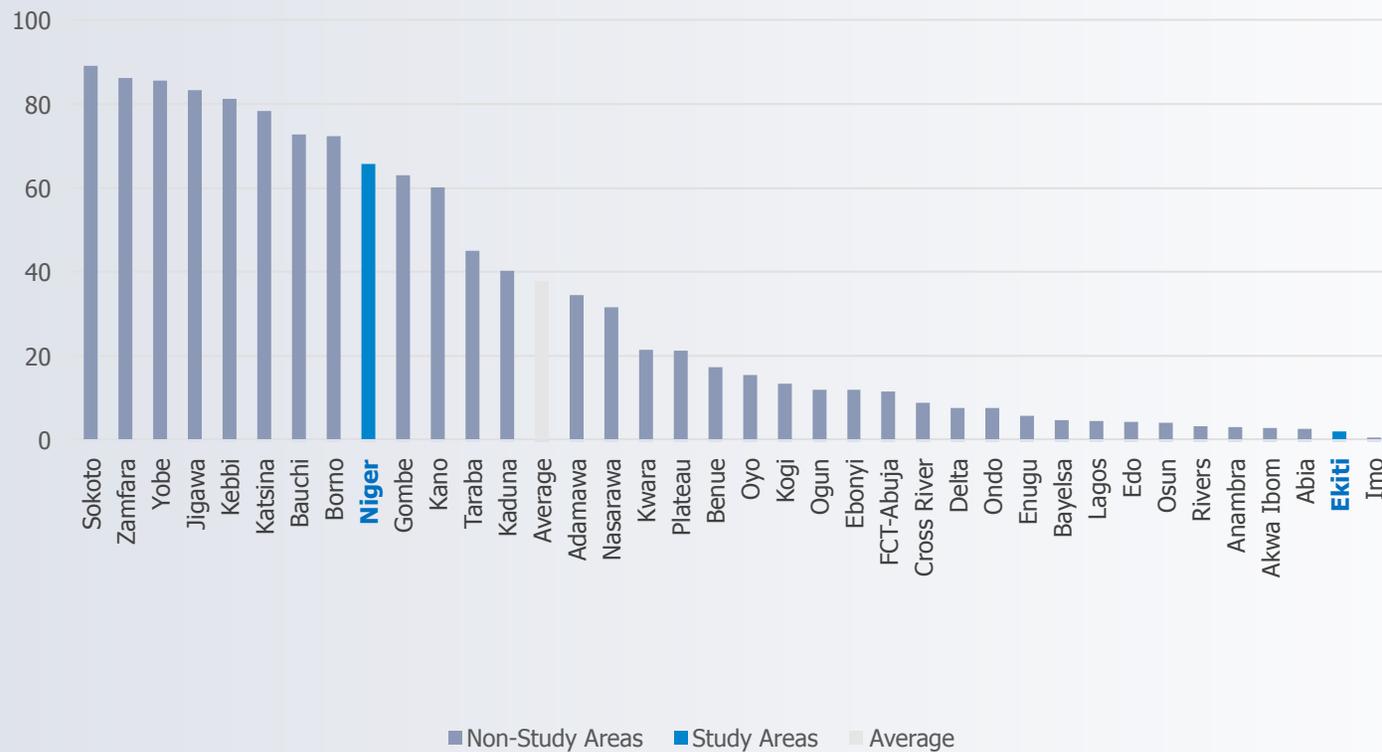
- Naturally want to evaluate optimal low-cost incentives in public sector
- But also contribute to recent literature on external validity: studying variations in outcomes for varying implementation of 'exactly the same' intervention
 - Allcott and Mullainathan (2012)
 - Bold *et al.* (2013)
 - Banerjee, Karlan, and Zinman (2015)

Context

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Context

Fraction of Women with No Formal Schooling (DHS 2013)



Context

- In this case we work in two quite different states of Nigeria: Ekiti and Niger
- Larger project introduced relatively simple forms to track income and expenditure streams at PHCs
- Weekly visits by enumerators to build capacity as well as check on progress, but no incentives
- Qualitative work suggests little existing motivation for record-keeping (e.g. belief in social benefits); health committees cared primarily about visitation

Checklist

- Form C records all cash transactions at the facility
- For this study we added a scoring checklist:
 - Was form C filled out prior to arrival?
 - Did the treasurer check form C for accuracy?
 - Is each of the five main sections complete?
 - Are drug purchases / sales as recorded in form C consistent with other documentation?
 - Can staff provide receipts / invoices to substantiate the data in form C?

Behavioral incentives

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- Here we focus on social comparison / recognition, and on lotteries (*cf* probability weighting)

Social recognition

- Considerable research shows that public / peer recognition and status is highly motivational for humans; e.g. Stajkovich & Luthans (1997, 2001)
- Also less likely to 'crowd out' intrinsic motivation than are monetary rewards (Ryan & Deci, 2000)

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- Mathauer & Imhoff (2006) find this for public / private / NGO healthcare workers in Benin
- Ashraf, Bandiera, & Jack (2014) find that stars beat money selling female condoms in Zambia

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- Has been used in finance (e.g. prize-linked savings) and road safety (lottery tickets given to all qualified drivers and *taken away* for safety infractions)
- In health: Volpp *et al.* (2008) successful financial lotteries for medication adherence and weight loss

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Social recognition certificate



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- Sample size 65 in Ekiti plus [possible] 75 in Niger, so no possibility of separately testing loss aversion
- Indeed risky even with three arms
- So...

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- Sample size 65 in Ekiti plus [possible] 75 in Niger, so no possibility of separately testing loss aversion
- Indeed risky even with three arms
- So... after much debate decided on “social vs control” in Ekiti and “social vs lottery” in Niger

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- By then what should have been 4 months of data collection had dwindled to 2 before project died
- However with weekly data collection we could still potentially split the time period in half
- Added benefit of simplifying training, but risky in terms of power and trends / learning

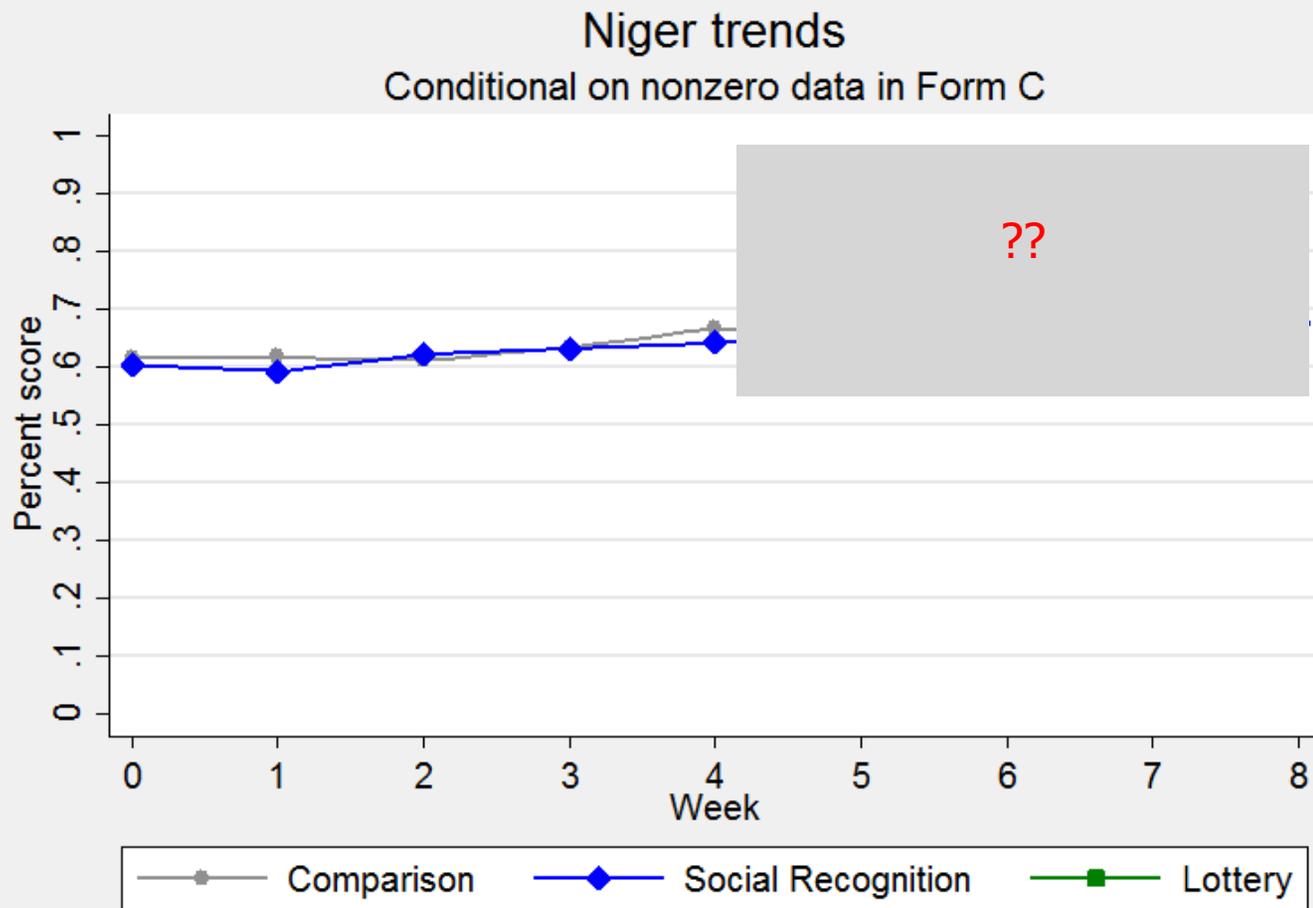
Evaluation design

- So in the end we first compared social recognition to control, stratified by state, which was our primary outcome of interest
- And then implemented the lottery within the control

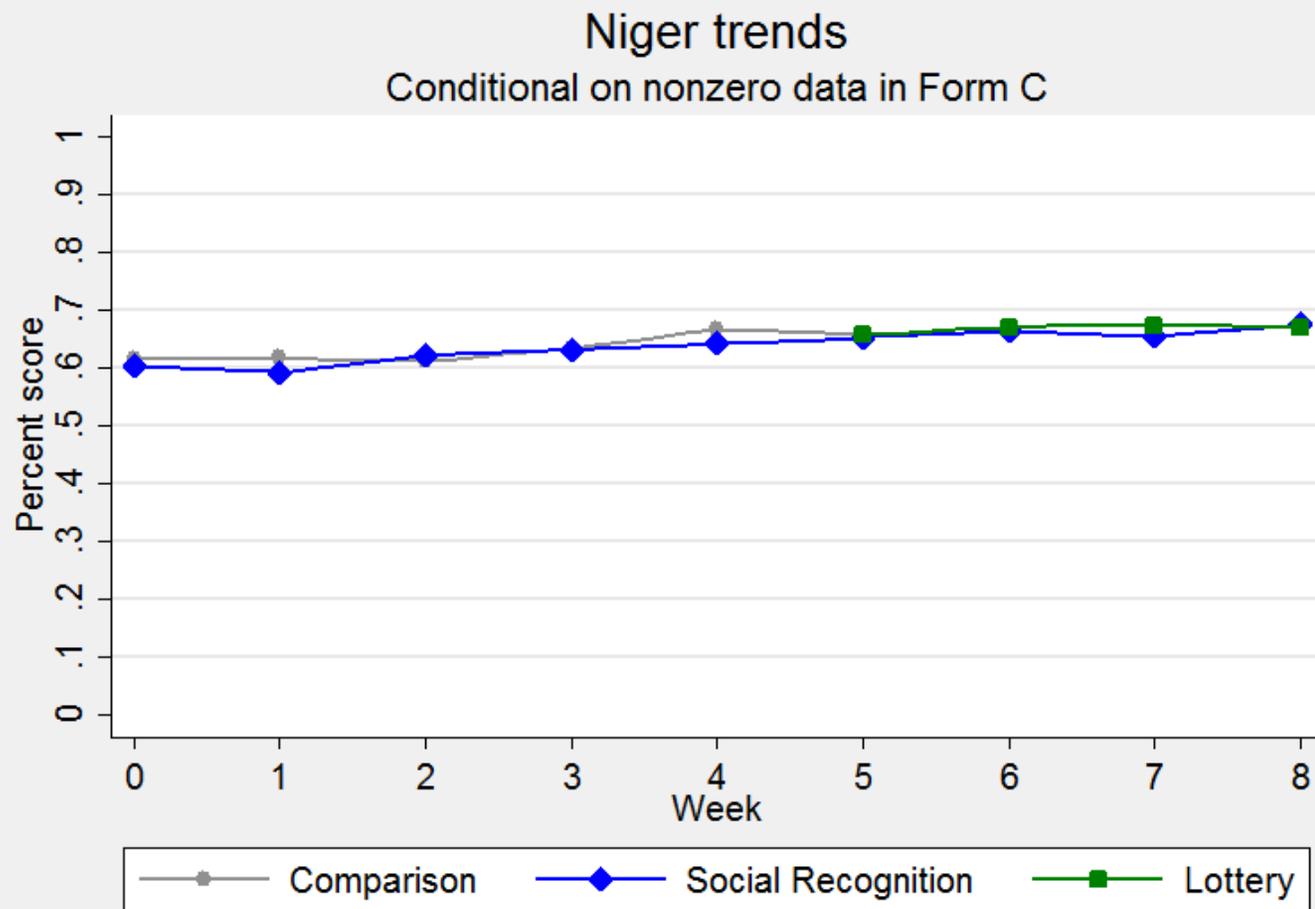
	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
1 st half of facilities in each state	Baseline	Social Recognition				Social Recognition			
2 nd half of facilities in each state	Baseline	Comparison				Lottery			

Results!

Results: Niger



Results: Niger



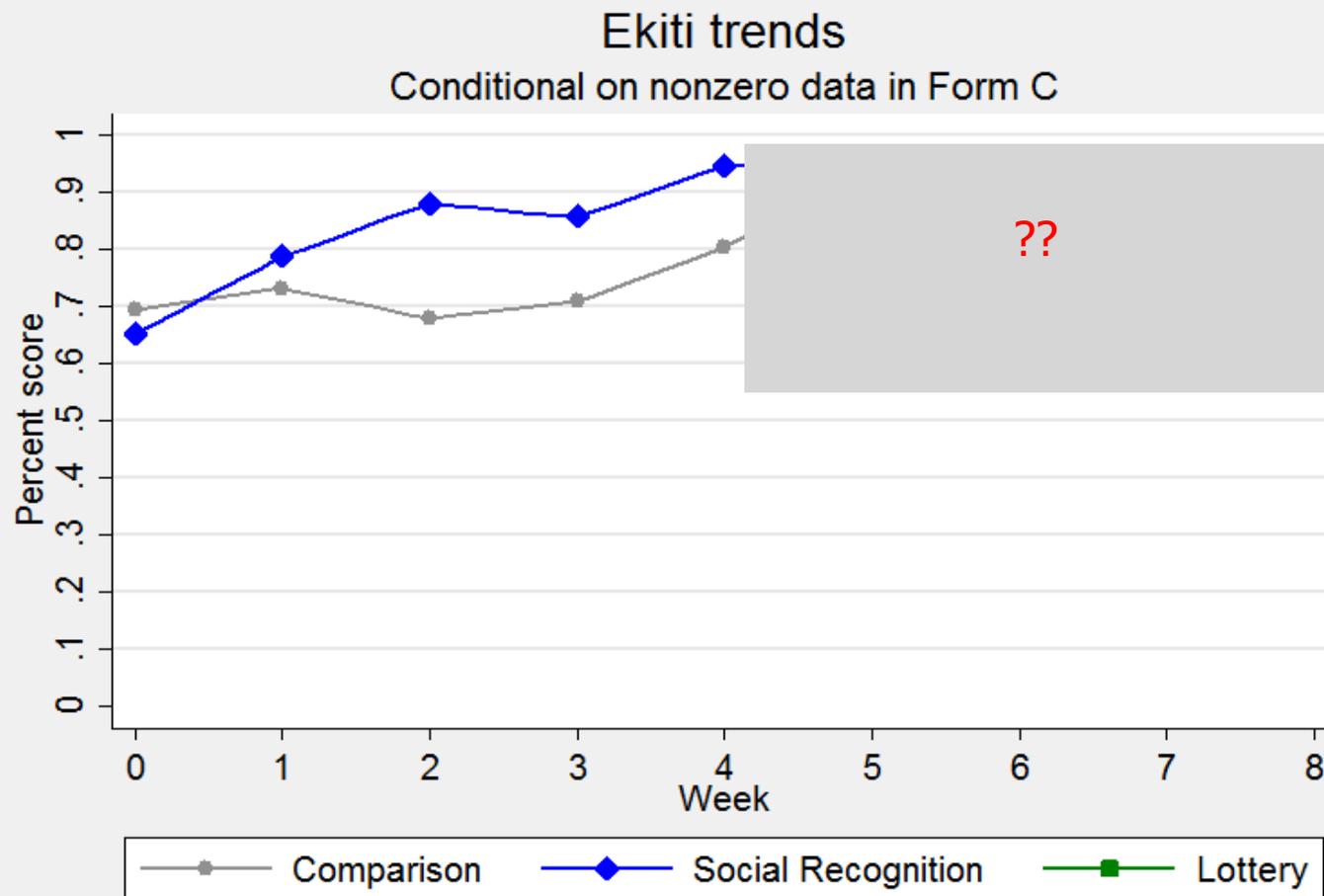
Results: Niger

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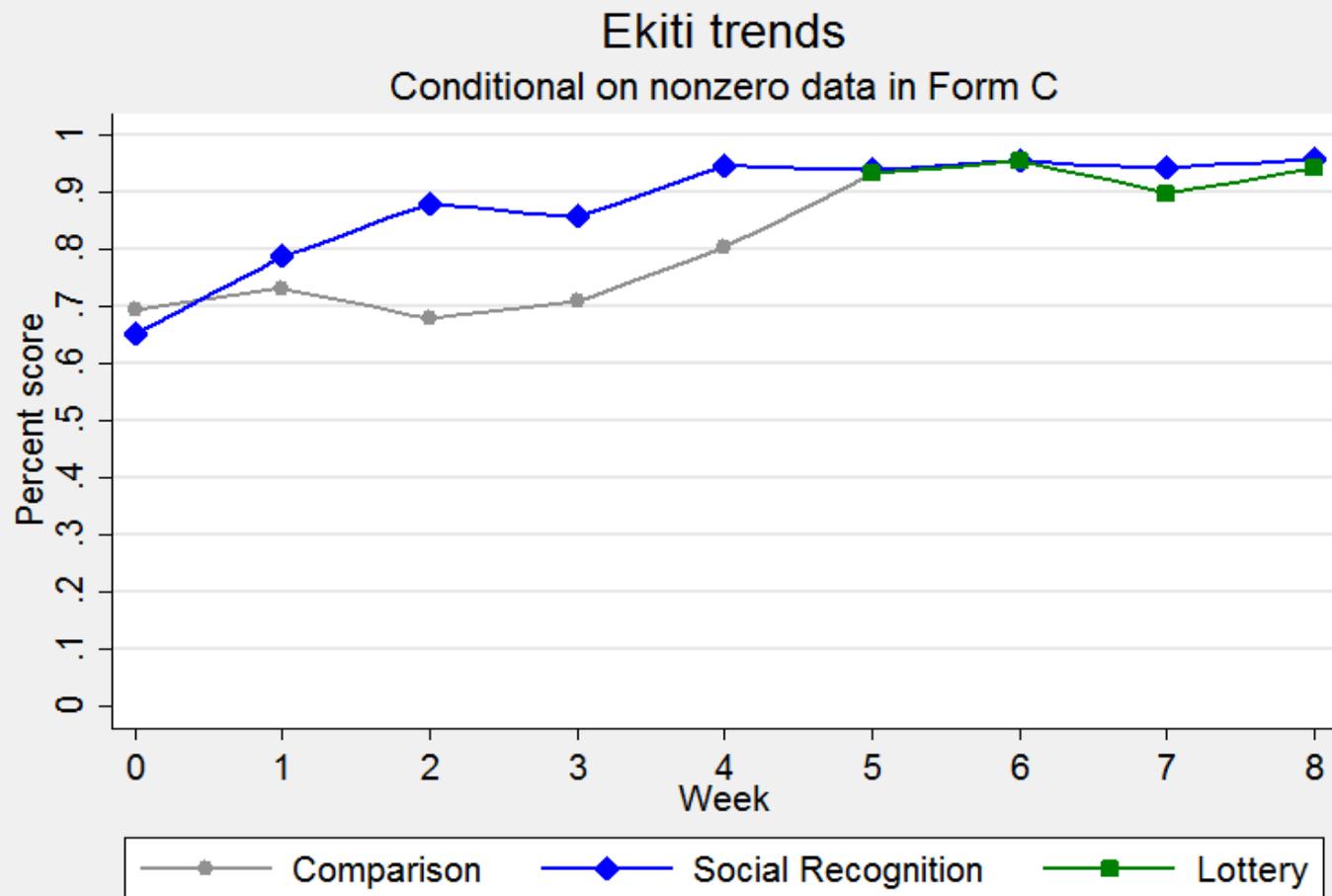
Results: Niger

- Exactly nothing, with what was ex post a fairly clean test of each intervention
- Qualitative follow-up work suggests that govt (and perhaps staff) capacity and trust was much lower in Niger, e.g. drug procurement mechanisms, somewhat counterbalanced by community strength
- Apparently also worse communication about the actual substance of the interventions

Results: Ekiti



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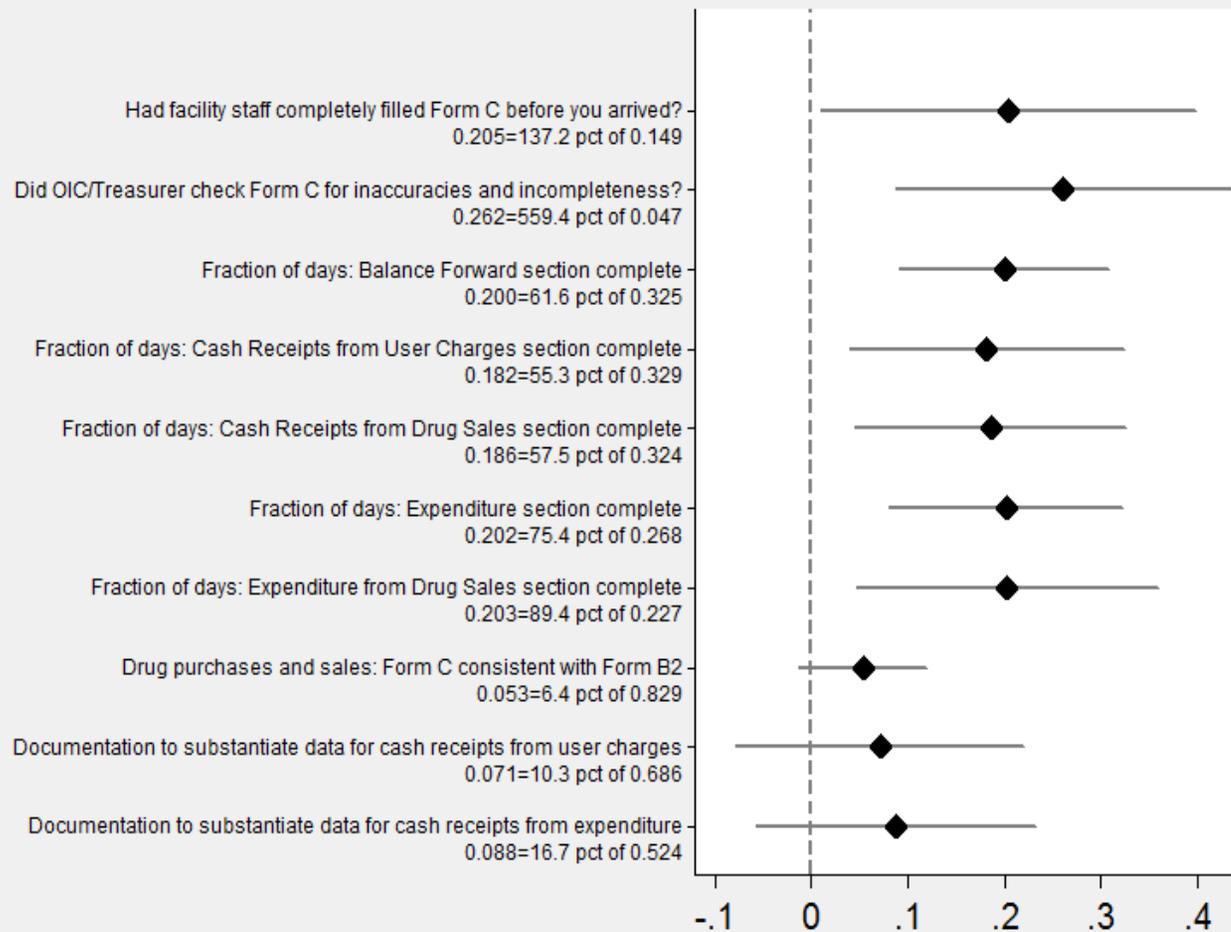
Results: Ekiti

- Clear positive effect of the social recognition, although some evidence that control (which of course is highly monitored...) is improving also
- Regression results confirm this, but can't support parallel trends assumption so no possibility of a firm conclusion regarding effects of lottery
- Also note something close to a ceiling effect here

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- Qualitative: certificates mattered even if not fully understood by staff or public

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Discussion

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- Not surprising but once again a finding that what was meant to be an identical intervention by teams trained the same way was both implemented differently and had vastly different outcomes

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- Strong evidence that social recognition matters and drives (or at least can drive) behavior
- No clear evidence around lotteries, nor around long-term marginal effects of recognition