

Policy Evaluation

Lecture 6: Case Study of Indonesian Raskin Project

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July 2, 2018

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From Two Papers

- Banerjee, Abhijit, Rema Hanna, Jordan Kyle, Benjamin Olken, and Sudarno Sumarto. “The Power of Transparency: Identification Cards and Food Subsidy Programs in Indonesia.” NBER Working Paper No. 20923, February 2015.
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- Banerjee, Abhijit, Rema Hanna, Jordan Kyle, Benjamin Olken, and Sudarno Sumarto. “Contracting out the Last-Mile of Service Delivery: Subsidized Food Distribution in Indonesia.” Working Paper, November 2015.

Improving the Distribution of a Subsidised Rice Programme in Indonesia

Evaluation Partners



- National Team for the Acceleration of Poverty Reduction (TNP2K)
 - Established by and positioned under Vice President Boediono
 - Brokers evidence-based policies for improving effectiveness of social assistance programs,
 - Coordinates multiple government actors towards this purpose
- The RCT was funded by the Australian Department of Foreign Affairs and Trade

Identification of Problem/Solution

Raskin: Subsidised Rice for the Poor

- Largest Indonesian social assistance programme
 - 53% of all public social assistance
 - Poorest 30% of households entitled to 15 kg per month at one fifth the market price
- Village heads responsible for Raskin distribution
- Delivery is **often ineffective**
 - Beneficiaries pay a 25% mark-up on price and only receive one-third of their entitled quota
 - Thus, they only receive 30% of subsidy



Programme Challenges & Policy Questions

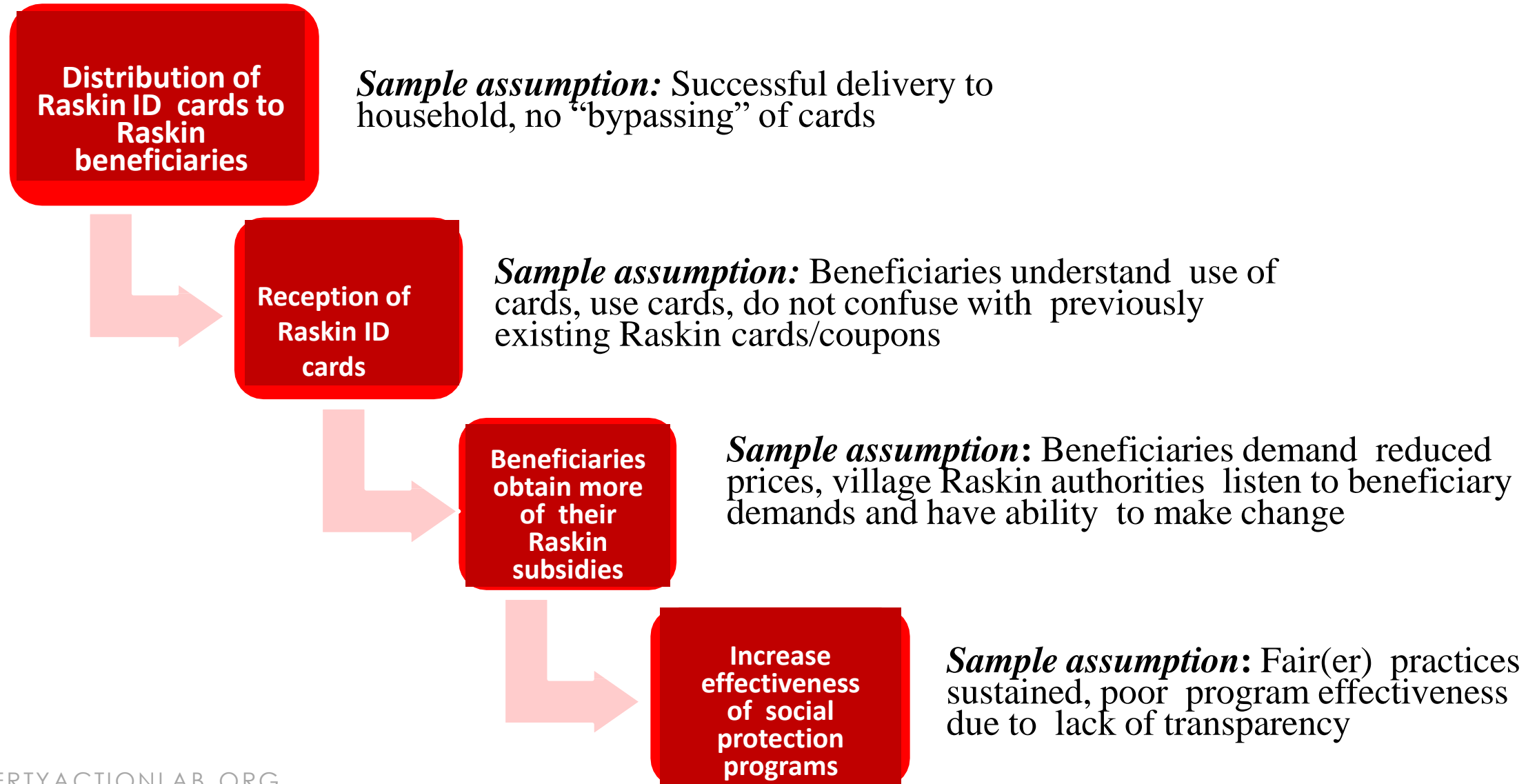
- Delivery faced many challenges:
 - Lack of transparency
 - Monopoly distribution
- Government of Indonesia wanted to know:
 - Does improved transparency through a Raskin card improve the targeting and distribution of Raskin?
 - Does allowing outsiders the right to bid to distribute Raskin improve distribution?



Proposed initiative: Distribute ID Cards

- TNP2K interested to build evidence about whether distribution of Raskin ID cards could overcome challenges in program delivery
- TNP2K reached out to J-PAL in early 2012 to collaborate on an impact evaluation
- Government required results by Dec 2012, in order to prepare for 2013 budget, limiting timeframe for implementation and results.

Theory of Change

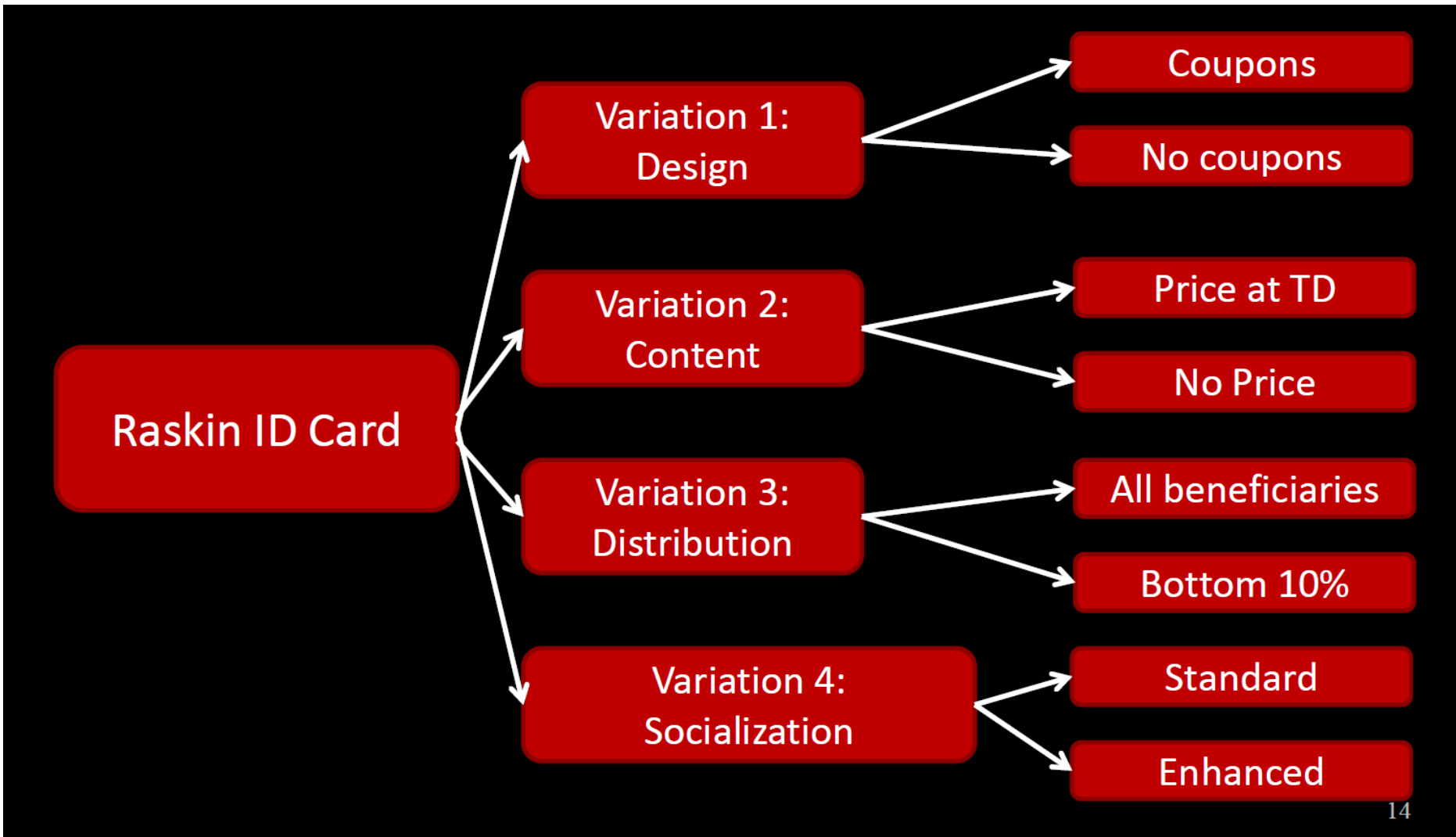


Evaluation Design

Log Frame

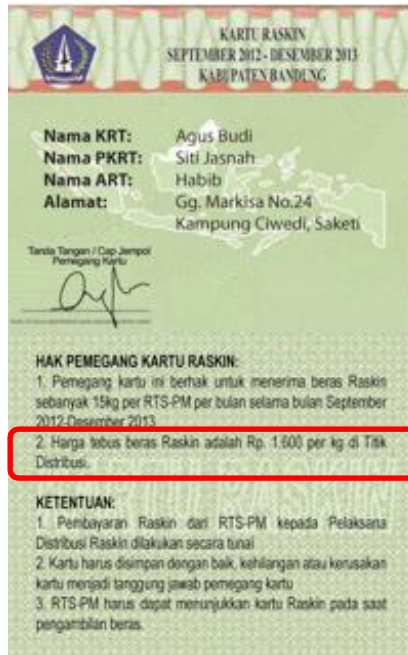
	Objectives Hierarchy	Indicators	Sources of Verification	Assumptions / Threats
Impact (Goal/ Overall objective)	Increase transparency and effectiveness of social protection programs	Quantity and price of Raskin purchased	Household survey	Fair(er) practices sustained, poor program effectiveness due to lack of transparency
Outcome (Project Objective)	Beneficiaries obtain more of their Raskin subsidies	Quantity and price of Raskin purchased	Household survey	Beneficiaries demand reduced prices, village Raskin authorities listen to beneficiary demands and have ability to make change
Outputs	Reception of Raskin ID cards	Whether or not beneficiaries receive Raskin cards	Household survey	Beneficiaries understand use of cards, use cards, do not confuse with previously existing Raskin cards/coupons
Inputs (Activities)	Distribution of Raskin ID cards to Raskin beneficiaries	Whether or not cards are sent	Household survey, administrative data from PT Pos*	Successful delivery to household, no “bypassing” of cards

Overview of Intervention



14

Example of Raskin ID Cards



Raskin card without coupon, with price



Raskin card with coupon and price

Enhanced Socialization Posters

1

MAU BELI RASKIN?
GUNAKAN KARTU RASKIN ANDA!

PENGUMUMAN:

1. Rumah Tangga yang berhak membeli Raskin tercatat di Daftar Penerima Manfaat (DPM)
2. Rumah tangga tersebut akan memperoleh Kartu Raskin
3. Kartu Raskin harus dibawa saat membeli Raskin

4

MAU BELI RASKIN?
GUNAKAN KARTU RASKIN ANDA!

KARTU RASKIN
SEPTEMBER 2012 - DESEMBER 2012
KABUPATEN RANGKONG

Nama KRT: Agus Budi
Nama PKRT: Siti Jasnah
Nama ART: Habib
Alamat: Gg. Markisa No.24
Kampung Ciwedi, Saketi

Tanda Tangan / Cap Jempol Pemegang Kartu

HAK PEMEGANG KARTU RASKIN:
1. Pemegang kartu ini berhak untuk menerima beras Raskin sebanyak 15kg per RTS-PM per bulan selama bulan September 2012-Desember 2012
2. Harga beras Raskin adalah Rp. 1.600 per kg di TPA Distribusi.

KETENTUAN:
1. Pembayaran Raskin dari RTS-PM kepada Pelaksana Distribusi Raskin dilakukan secara tunai
2. Kartu harus disimpan dengan baik, kehilangan atau kerusakan kartu menjadi tanggung jawab pemegang kartu
3. RTS-PM harus dapat menunjukkan kartu Raskin pada saat pengambilan beras.

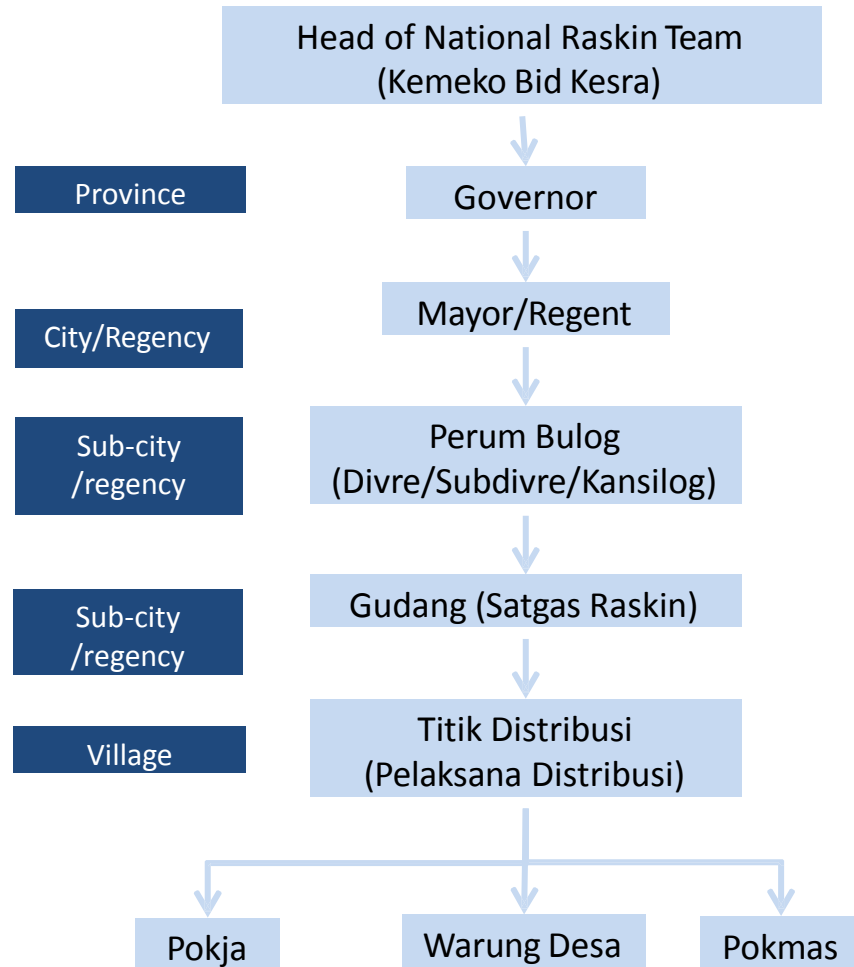
PENGUMUMAN:

1. Rumah Tangga yang berhak membeli Raskin tercatat di Daftar Penerima Manfaat (DPM)
2. Kelompok rumah tangga paling miskin memperoleh Kartu Raskin
3. Penerima kartu harus membawa Kartu Raskin saat membeli Raskin

Treatment variations

Card Variations			Standard socialization	Enhanced Socialization
All beneficiary	Price	Coupon	Group 1	Group 2
		No Coupon	Group 3	Group 4
	No Price	Coupon	Group 5	Group 6
		No Coupon	Group 7	Group 8
Bottom 10%	Price	Coupon	Group 9	Group 10
		No Coupon	Group 11	Group 12
	No Price	Coupon	Group 13	Group 14
		No Coupon	Group 15	Group 16
			Control (No card, no socialization)	

Identifying unit of randomization



- What is the smallest administrative unit at which Raskin distribution is conducted?
- Kecamatan? Gudang bulog? Village? Dusun?

Sample frame

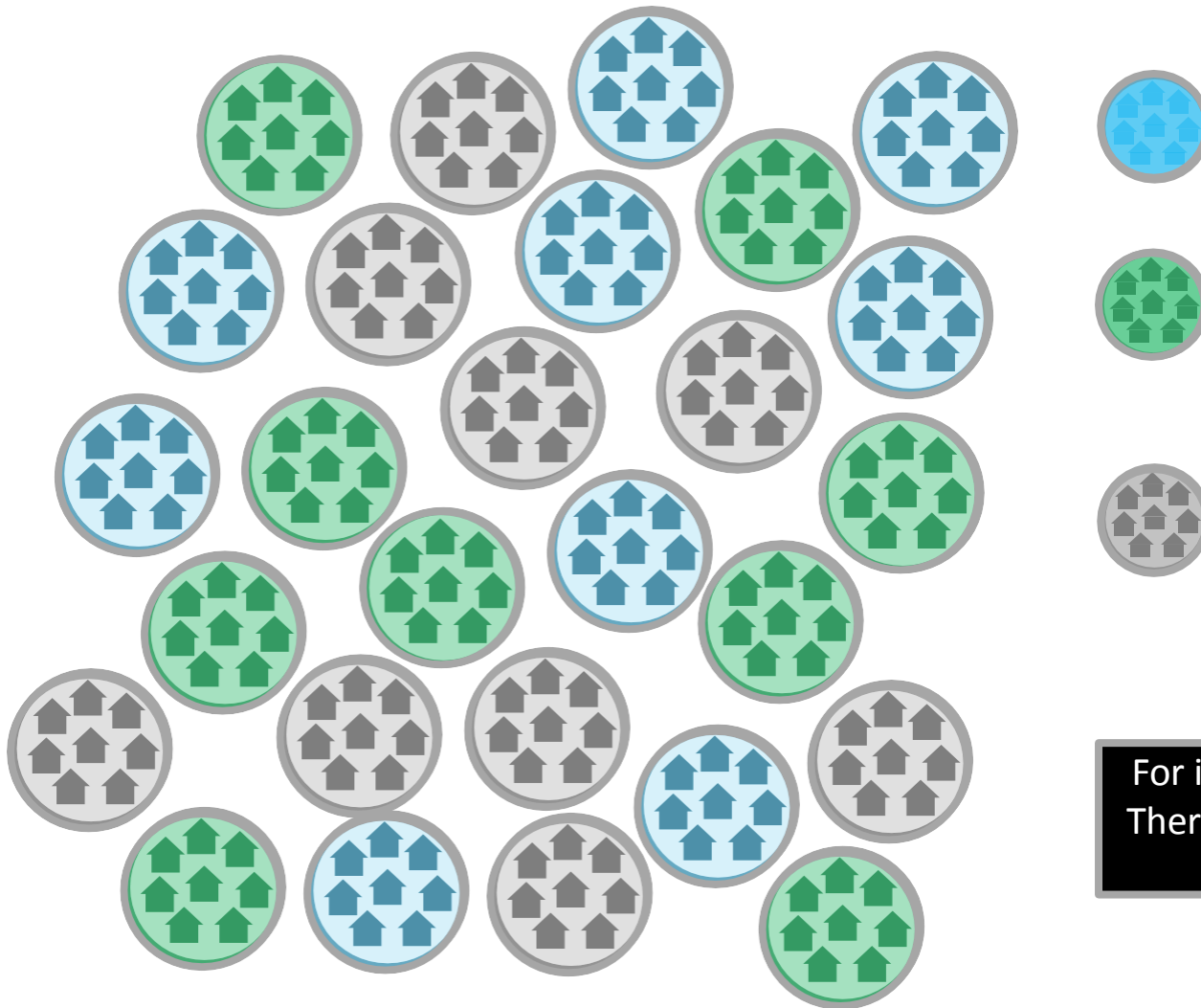
- Raskin sample identical to previous project's (Targeting II)
- 600 villages (including control)
 - 28 dropped due to risk and remoteness
- 572 villages within 6 Kabupaten
 - Pemalang and Wonogiri (Central Java),
 - Palembang and Ogan Komering Ilir (South Sumatera),
 - Bandar Lampung and Central Lampung (Lampung)



Stratification

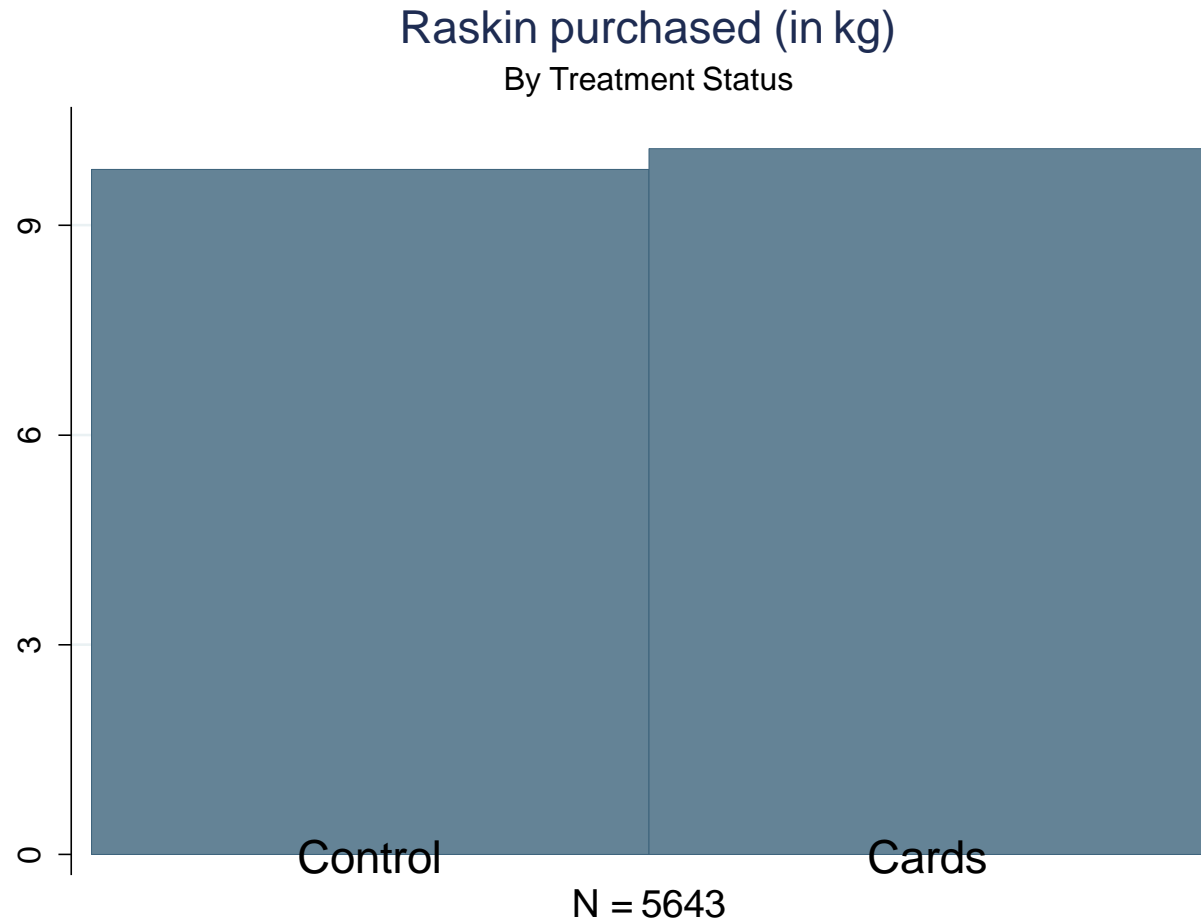
- Treatment stratified by
 - Kabupaten,
 - Targeting II Treatment Group,
 - Kecamatan and
 - Urban to rural ratio of 2:3

What did the randomization looks like?



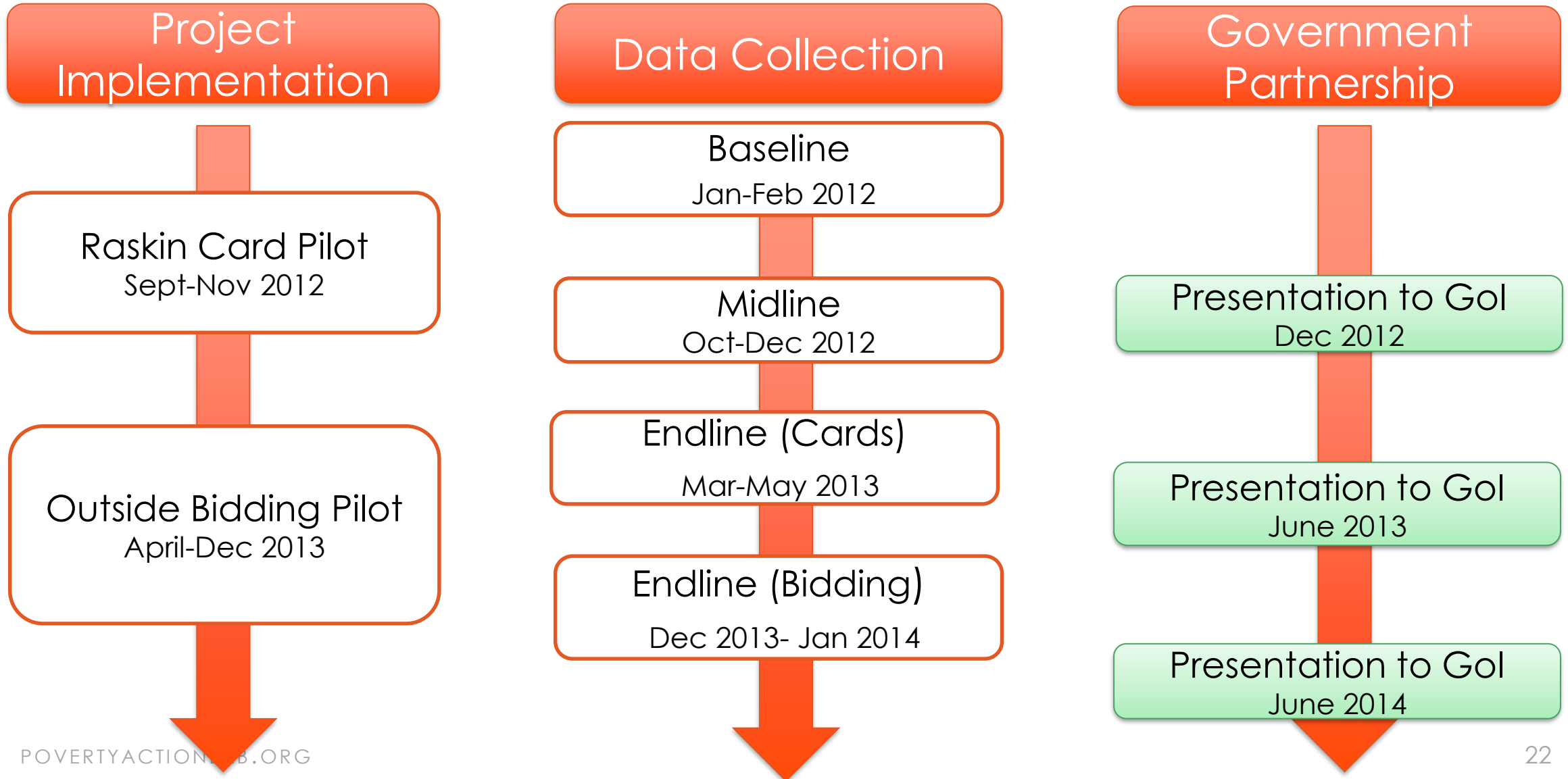
For illustrative purposes only.
There are 16 treatment group
variaitions, not 2.

Balance: Treatment and Control villages were statistically equivalent prior to the pilot



Evaluation Implementation

Timeline



Data Collection Plan

- Survey instruments: household and community survey
- Baseline—use previous project's endline
 - Ensure control and treatment groups are statistically equivalent
- Identify respondents
 - Respondents:
 - Raskin beneficiaries (poor)
 - Raskin beneficiaries (very poor; 10% paling miskin)
 - Non-Raskin beneficiaries
 - Listing, to identify non-Raskin beneficiary households
 - Use PPLS'10 data, to identify potential Raskin beneficiary households

Challenges in Data Collection

- Matching administrative data with field
 - Human error, change in poverty status/address
- Accommodating changes to administrative areas (e.g. *pemekaran*)
- Time constraints
- Obtaining sufficient HR to conduct data collection work
- Other concerns: how far behind can respondents remember? How do we phrase/explain “Titik Distribusi”? Etc.

Data Collection Steps

Survey	Data source	Respondents surveyed	Data collected
Baseline 2011	Endline from Targeting II, a previous project	PKH eligibles, non-poor	Main purpose: ensure control and treatment groups statistically equivalent
Midline Oct-Dec'12	5,148 HH, through household surveys and community surveys (targeted to village head)	Mix between non-poor and Raskin beneficiaries (poor and very poor)	Amount and price of Raskin rice purchased, awareness on Raskin program, satisfaction levels with Raskin program, overall household consumption, subjective wealth/standing, etc.
Endline Mar-May '13	6,292 HH, through HH and community surveys	<i>Ibid</i>	<i>Ibid</i>

Challenges in Program Evaluation

- **Attrition:** when evaluators fail to collect data on individuals who were selected as part of the original sample
 - ML: 9% replaced (418/4,572), EL: 9.8% (561/5,706)
 - Replacement of respondents integrated into data collection process

VERTICAL

Group B:

Group C:

Pre-Analysis Plan

Compare the impact of Card VS No Card

Card Variations			Standard socialization	Enhanced Socialization
All beneficiary	Price	Coupon	Group 1	Group 2
		No Coupon	Group 3	Group 4
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		No Coupon	Group 15	Group 16
			Control (No card and no socialization)	

Compare THIS

...with THIS

Compare the impact of Standard Socialization VS Enhanced Socialization:

Card Variations			Standard socialization	Enhanced Socialization
All beneficiary	Price	Coupon	Group 1	Group 2
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		No Coupon	Group 15	Group 16
			Control (No card, no socialization)	

**Compare
the impact
between
THIS
(relative to
the control)**

**...with
THIS
(relative to
the control)**

Compare the Cards with Price and Without Price

Card Variations			Standard socialization	Enhanced Socialization
All beneficiary	Price	Coupon	Group 1	Group 2
		No Coupon	Group 3	Group 4
	No Price	Coupon	Group 5	Group 6
		No Coupon	Group 7	Group 8
Bottom 10%	Price	Coupon	Group 9	Group 10
		No Coupon	Group 11	Group 12
	No Price	Coupon	Group 13	Group 14
		No Coupon	Group 15	Group 16
Compare orange cells combined (relative to the control group) with the green cells combined (relative to the control group)			Control (No card, no socialization)	

Analysis Steps



1. Write analysis plan



2. Write STATA do.file



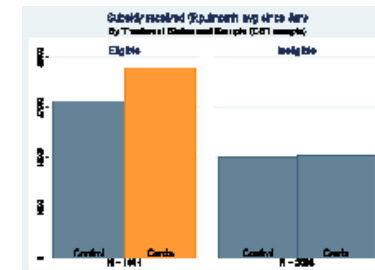
3. Run data
through program



6. Disseminate
findings



5. Analyze: Connect and
reference with qualitative
field observations



4. Generate results

Impact Evaluation

Project 1: Raskin Card Pilot

- Research Questions:
 - Can providing greater information to households about their rights under Raskin reduce leakage and improve the amount of subsidy received by poor households?
- Randomly assigned whether or not households received cards
 - 378 villages received cards
 - 194 comparison villages did not receive cards



Raskin card

Treatment Variation: Public Information

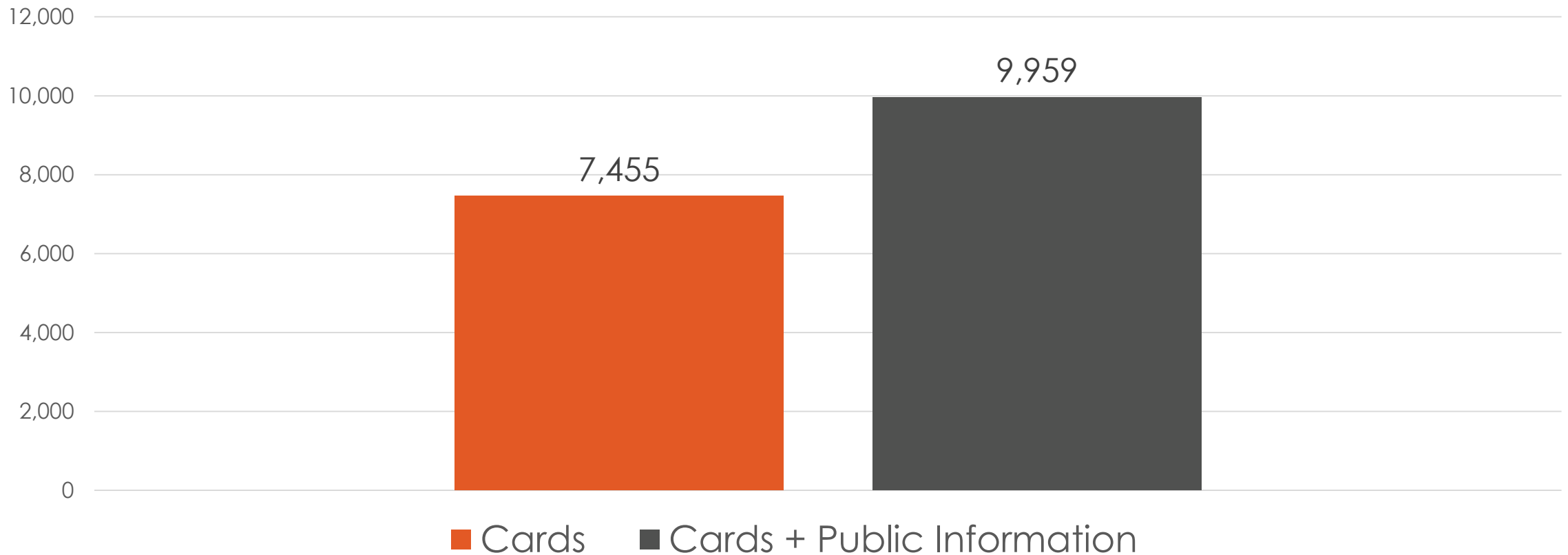
- The 378 treatment villages that received cards also received information
 - Standard Information (186 villages)
 - Letter and list of beneficiaries sent to villages
 - Public Information (192 villages)
 - Letter, list of beneficiaries, informational posters, public announcement, and socialisation to village leaders
- The 194 comparison villages did not receive information



A facilitator explaining Raskin Cards to village leaders in OKI, Central Lampung

Raskin Cards: Key Results

Increase in subsidy received per eligible household
(Rp/month)



Raskin cards improved overall delivery of subsidised rice

- Distributing Raskin cards improved the programme by increasing take-up, reducing price mark-ups, and increasing the quantity eligible households received
 - Eligible households received a Rp. 7,455 (26%) increase in subsidy compared to Rp. 28,605 in comparison villages
 - This corresponded with no decrease in subsidy for ineligible households
- Public information further improved beneficiary subsidy
 - Public information increased subsidy by Rp. 9,959 (35%) compared to comparison villages

Project 2: Outside Bidding Activity Pilot

- Local officials collected Raskin from the distribution point and distributed to citizens
 - Created local monopoly over distribution process
- This pilot tested whether allowing private citizens the right to bid to distribute could improve Raskin distribution.



Experimental Design

Bidding	Comparison
<i>191 villages</i> <ul style="list-style-type: none">Facilitate bidding activity at the village, where individuals can compete for the right to distribute Raskin	<i>285 villages</i> <ul style="list-style-type: none">No treatment
Minimum Bids	
<i>A subset of 96 villages</i> <ul style="list-style-type: none">Encouraged to have a minimum of three bids	

Bidding treatment increased involvement but did not always change the status quo

- High level of participation in bidding process:
 - On average, 2.4 bidders per village
 - However, mostly local elites participated in the process
- Incumbent distributor not always overturned:
 - In 52% of bidding villages, the incumbent distributor won the bidding
 - Incumbent more likely to win when initial price charged was low and when initial satisfaction levels were high
- Overall, the bidding treatment led about 17 percent of villages to switch distributors
 - Applicants who proposed lower prices and who had relevant experience as traders were more likely to be selected
- However, winners were prevented from delivering in some villages

Outside bidding improved the distribution

- The bidding treatment led to a 8% reduction in the mark-up paid by households
- Distribution quality did not decline in other ways to compensate for the lower price, and if anything households reported that the rice quality *improved*
- Much of the price reduction was driven by the minimum bid treatment
- On net, the card treatment was a much bigger effect, at a lower cost.....



Policy Scale-Up: Social Protection Card (KPS)

The Government of Indonesia scaled up Raskin cards as Social Protection Cards (KPS)



Conclusions

- Conducting a randomised evaluation allowed the GoI to rigorously test potential policies and to use the evidence to inform decision-making
 - Concepts from the Raskin card pilot were incorporated into national policy
 - Findings from the bidding pilot can help inform the direction of future possible reforms to the Raskin programme
- The randomised evaluation was conducted through strong collaboration between government, researchers and donors, which allowed for it to be completed within a tight timeframe