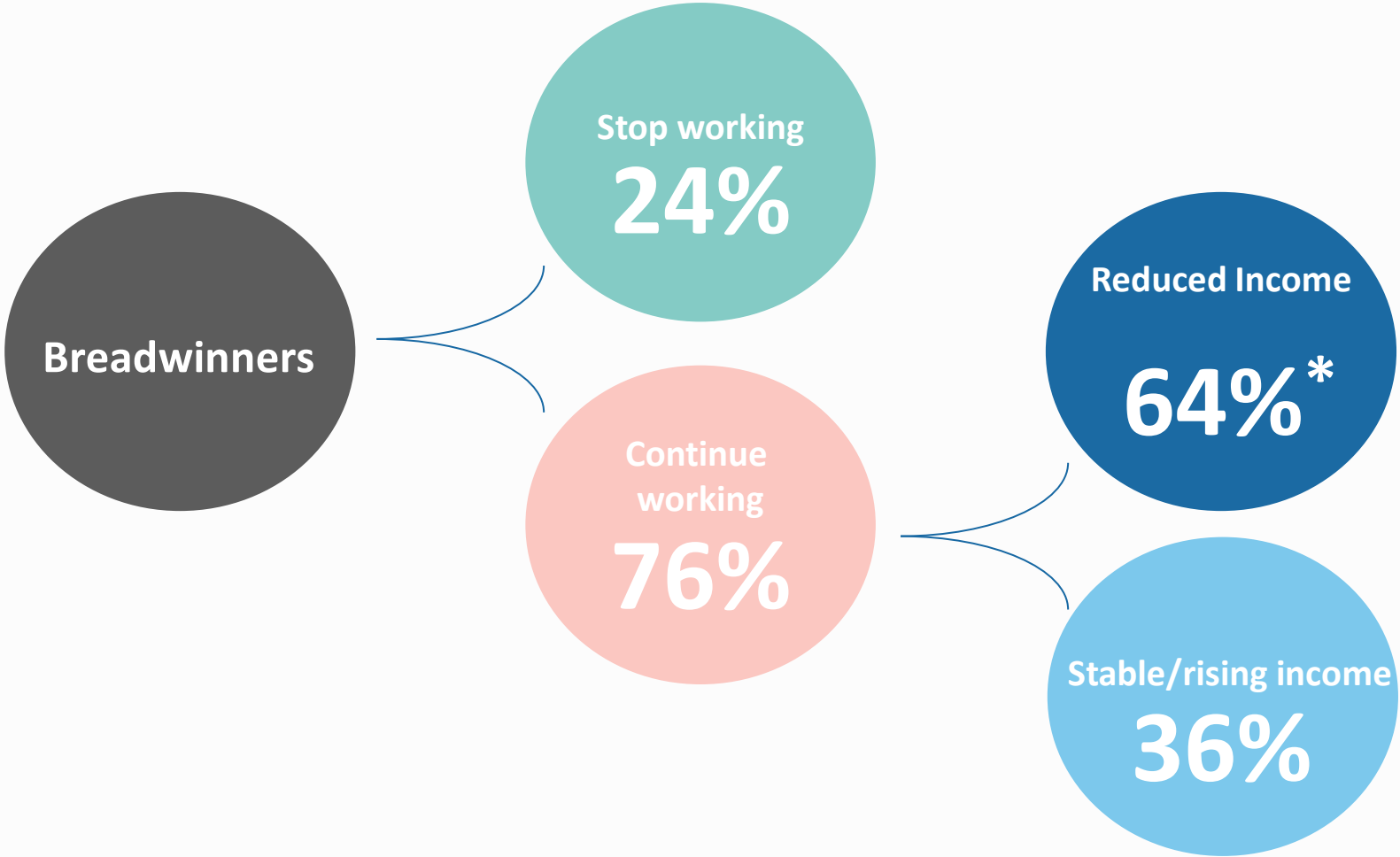




Improving Targeting System in Addressing Covid Impact

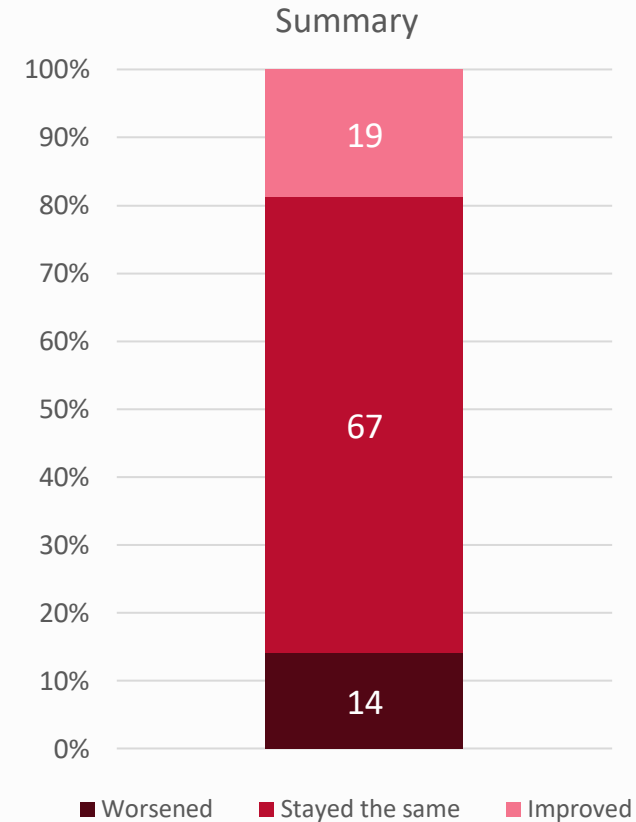
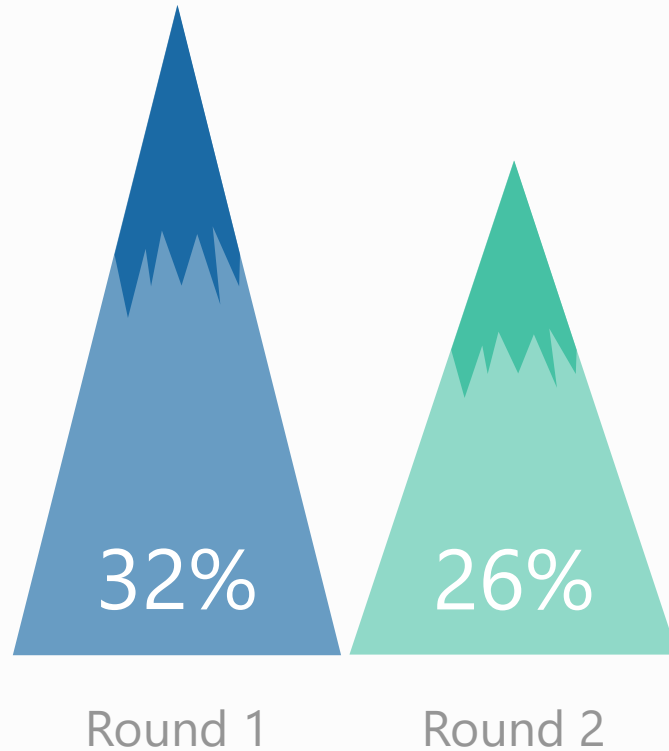
Vivi Alatas

Covid impact hits almost every one



Source: Indonesia COVID-19 Observatory: High-Frequency Monitoring of COVID-19 Impacts on Households, World Bank, 2020.

Households experiencing food shortage



Source: Indonesia COVID-19 Observatory: High-Frequency Monitoring of COVID-19 Impacts on Households, World Bank, 2020.

Not only the poor , the bottom middle class also need help



Covid Social Assistance Program Rp 203.90 T (Perpres 72/2020)

1. PKH Rp37,40T;
2. Sembako Rp43,60T;
3. Bansos Jabodetabek Rp6,80T;
4. Bansos Non-Jabodetabek Rp32,40T;
5. Pra Kerja Rp20,00T;
6. Diskon Listrik Rp6,90T;
7. Logistik / Pangan / Sembako Rp25,00T; &
8. BLT Dana Desa Rp31,80T

Targeting is key

Indonesia's major household social assistance programs are a critical contribution to providing a social safety net for the poor and vulnerable

To be effective, they must be well-designed and implemented, including targeting

Limited budgets vis a vis uncertainty of when Covid will cease

Effective targeting maximises benefits to target households...

...while minimising cost of delivery

In an increasingly complex environment of COVID

Improving Targeting System

is needed more than ever

Significant reliant on Government Assistance

Do not receive any kind of Social Assistance Program* (%)

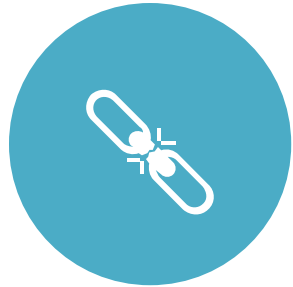
Overall, 55% of households relied on government assistance.

This is significantly higher among households with female, older, lower educated heads and those in the bottom 40% and in DKI Jakarta.



Source: Indonesia COVID-19 Observatory: High-Frequency Monitoring of COVID-19 Impacts on Households, World Bank, 2020.

We need to improve targeting system



Why

Addressing Shocks
Reforming Policies
Addressing Inequality and Poverty



What

Allowing the new poor to enter and the graduates to exit

Updating allows households to register a change in status
Change in demographic characteristics (e.g. new children)

It is difficult

Complex

Indonesia is a complex targeting environment
World's largest archipelago and fourth most populous country
Decentralised budgetary and operational control
Indonesian poverty is very fluid, with high rates of entry and exit
Multiple targeted programs with different objectives

Path Dependency

Optimizing the targeting methods is also subject to a degree of path dependency
Indonesia has a range of existing targeting systems and agencies.



Buy in from all stakeholders

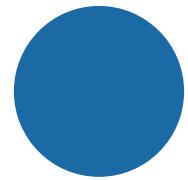
Implementation at central levels requires line ministry buy-in of all program elements

Implementation at local levels requires local government, local leader and community buy-in

Continued political support also requires parliamentary buy-in

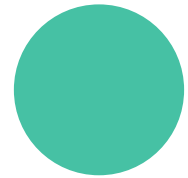
To be effective, a targeting system needs buy in

Buy-in is determined by a number of factors.



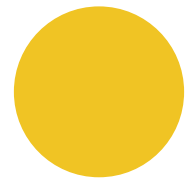
Credible

The credibility of the institutions in charge of implementation and targeting is important



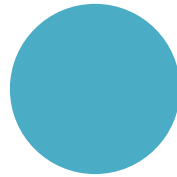
Institutional Arrangement

Collaborative with clarity of role and responsibility



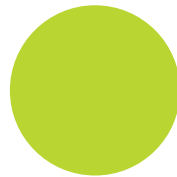
Rigorous

Targeting methods need to be technically correct and the operating procedures are comprehensive and feasible



Accountable

The implementing agencies must be accountable



As System

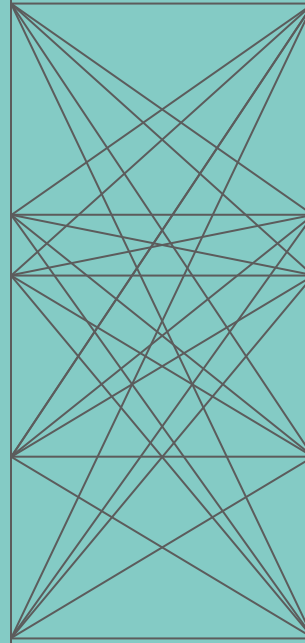
Not just a new data but also a system that include Socialization, Grievance Mechanism, M&E etc



Methods in Targeting the Poor

Collection Methods: Which Households to Assess?

- Geographical Targeting
 - Determine areas to survey
 - Determine number of households to survey in each area
- Survey Sweep: visit all households
- Community referral
 - Village meeting refers households to survey
 - Village head or elite refers households
- Revisit and update pre-existing lists
 - Program lists
 - Lists of the poor
- Self-assessment: allow anyone who thinks themselves poor to apply



Selection Methods: How to Assess Households?

- Means Test: use verified or unverified household income
- Proxy Means Test: survey household indicators
- Categorical: all households with certain demographic characteristics qualify
- Community selection
 - Village meeting selects beneficiaries
 - Village head or elite selects beneficiaries
- Self-Selection: anyone who applies enters the program



**A mix of methods can be applied in different areas or contexts:
there is no best method for all situations**

Targeting accuracy could be improved through better collection of poor household data and better selection of the poor from those data

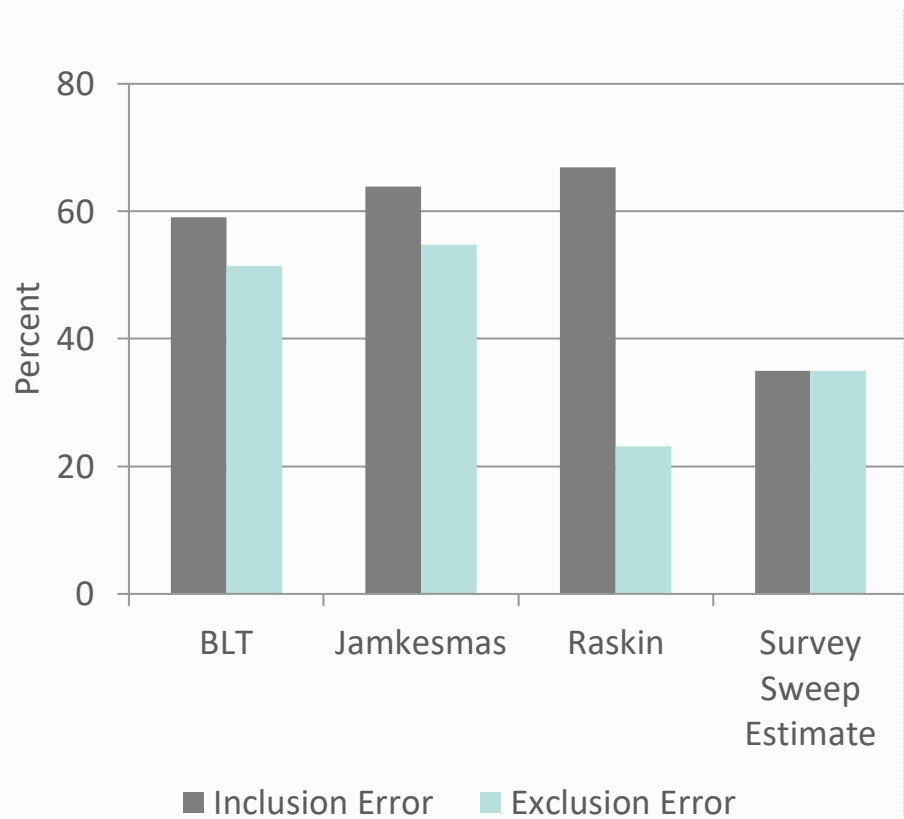
1. Better Collection of Data on Candidates of Beneficiary Households
 - Ensuring the right households are surveyed
2. Better Selection of Beneficiary Households from Survey Data
 - Accurately identifying the welfare status from amongst those surveyed

Different updating methods have different advantages. A mixed method approach is best the approach

Method1.	Maximize impact
1. Survey Sweep	<ul style="list-style-type: none">▪ In very high poverty areas
2. Dynamic Targeting through self-targeting (on demand system)	<ul style="list-style-type: none">▪ In low/moderate poverty areas▪ Need effective socialization strategy
3. Community additions	<ul style="list-style-type: none">▪ In areas with high very poor exclusion errors▪ In areas with high level of diffusion▪ To capture transient shocks
4. Improve the PMT model	<ul style="list-style-type: none">▪ Need to combine with big data, geospatial data , utilization data. Explore using Machine Learning

THE IMPORTANCE OF SURVEY SWEEP

Restricting survey sweeps to the poorest kecamatan results in significant reduction in exclusion error



Survey sweeps all households
Ensures poor households are not excluded but is expensive
Can be reserved for the poorest kecamatan only using poverty map

Identifying the poorest kecamatan is possible through Census data

A kecamatan poverty map can be constructed using Census and Susenas

Because only the poorest kecamatan are swept, the cost per poor household identified can be lower.

The exact number of kecamatan to sweep will come from the kecamatan classification analysis, but can be adjusted to budget constraints

Survey sweep is collecting data for all households in particular areas

THE ROLE OF COMMUNITY

The plus of minus of community targeting?



Local Knowledge

Local knowledge of household economic status with lower cost

Local actors may have better information With lower costs of verification

Will account for recent shocks



Risk of elite capture

Possibility of corruption, nepotism or political exploitation

Community leader determining beneficiaries might include relatives and friends or might include certain individuals or households for political leverage

Broader community meeting might be dominated by elites



Satisfaction

May lead to greater satisfaction and buy-in

Final beneficiary lists may be closer to community opinions



Different objective

- May wish to avoid dissent
- Dividing equally
- Unclear what information communities use to identify program recipients
- May select beneficiaries according to criteria that differ from program and government objectives

PMT had the lowest rate of mistargeting overall, but community better identified the very poor...

Mistargeting

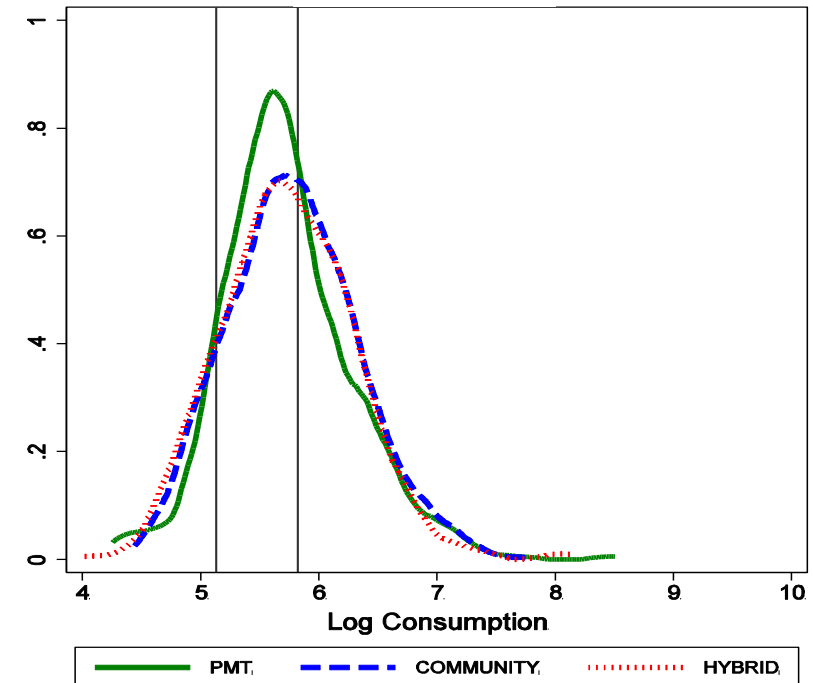
$$\text{MISTARGET}_{ivk} = \alpha + \beta_1 \text{COMMUNITY}_{ivk} + \beta_2 \text{HYBRID}_{ivk} + \gamma_k + \varepsilon_{ivk}$$

Sample:	Full population
Community treatment	0.031* (0.017)
Hybrid treatment	0.029* (0.016)
Observations	5753
Mean in PMT treatment	0.30

Mistargeting: (1) Households ranked lower than the village quota cut-off who did not receive transfer; (2) Households ranked higher than the village quota cut-off who did receive transfer

Using the PPP\$2 per day per-capita expenditure cutoff, 3 percentage point (or 10 percent) increase in mistargeting in community and hybrid over the PMT

Beneficiaries



PMT centered to the left of community methods — better performing on average
However, community methods select more of the very poor (those below PPP\$1 per day)

Lessons about community targeting

Hybrid Approach

Observation of the pilot stage suggest that a PMT-community hybrid can indeed be more effective than PMT alone
Many of the households added by the community are not on the PMT list of the poor, which is estimated to exclude around half of all poor households



Elite Capture

Elite capture was tested for
Half of villages had community elites only choose beneficiaries
Half of villages invited the whole community to a meeting



Concept



No evidence of elite capture

No evidence of elite capture was found
No difference in mistargeting outcomes
Elite households and those relatives less likely to be selected, regardless of actual consumption levels



Higher Satisfaction

Fewer complaints
Facilitators report less problems
Sub-village head more likely to think program appropriate, that community happy, less likely to think households missing from list



The role of community going forward

What

Community could be involved at the data collection stage
Community nominates potentially poor households that should be assessed by the selection methods
Community nominations could be used to update a pre-existing list
Update for demographic and economic changes

Who

Could be selected representative or the whole community
Elite meetings simpler during COVID and cost less



Standardized Protocol

To ensure transparency and avoiding fraud and nepotism needs to follow standardized protocol

ON DEMAND SYSTEM FOR CONTINUOUS
IMPROVEMENT



Research

Possibly lower costs
Has had good results
internationally for
certain programs



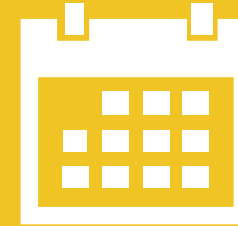
Coverage

Can easily Cover much
higher coverage



Online & Offline

Can be conducted both
Online and Offline.
During Covid we need
to maximize online
mechanism with some
hybrid using
community targeting
result to ensure better
coverage



Technology & Data

Will rely on using
technology to make it
available anytime,
anywhere, and data to
verified claim.



Socialization

To encourage the poor
and bottom middle
class, and to
discourage the rich

Verification with other data



Electricity Utilization



PBB



Mobile utilization



Tax record



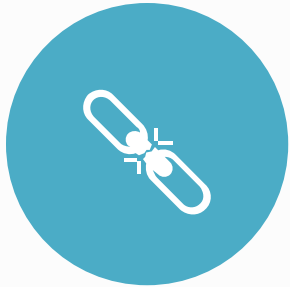
BPJS Kesehatan & Ketenagakerjaan



Other programs

HOW TO IMPROVE PMT

What can be improved?



Unobserved Characteristics

Need better data that shows transient instead of just chronic characteristics
Need better data that can distinguish upper decile



Small Sample Problems

Desire to have different model for different kabupaten will create dilemma specificity versus precision. We need to strike balance where to do the disaggregation of the model.



Methods error

There is a room of improvement in using Machine Learning

Using geo spatial and visual data to improve PMT



Google Street Data

To get better data to asses and categorized the neighbourhood



Satelite data

Lumination at night, Vegetation.



Link to facilities

Using the GPS data to get additional variables such as access to facilities and spatial data



Dwelling characteristics photo

Using AI / ML to get additional data and verified claim



BTRPN data (the land agency)

To improve assessment of neighborhood and have spatial characteristics and land ownership, prediction of land value



Other spatial data

Average NJOP of the neighborhood, car ownerships etc

Thank you