MPI: Why, What, and How?

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Why MPI?

Poverty can take multiple forms with many dimensions
Who says?

UN Member Countries via the SDG process

**Preamble.** We recognise that eradicating *poverty in all its forms and dimensions*, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development.

**Target 1.2:** by 2030, reduce at least by half the proportion of men, women and children of all ages living in *poverty in all its dimensions* according to national definitions.

-Transforming Our World (SDGs) 2015
It is not just how many people are deprived, but also how many households have a low score on all or several of the dimensions. Do those with low levels of education also suffer from poor health? From the standpoint of evaluating policy, the different dimensions have to be examined in conjunction.

Recommendation 19: Complementary Indicators should include a multidimensioned poverty indicator … implemented in terms of the adjusted head count ratio, and its constituents of the head count and average breadth of deprivation.
What is an MPI?

Poor are those sufficiently multiply deprived.
Poverty is prevalence of poor deprivations.
MPI Elements
Dimensions, Indicators, Cutoffs, Weights

Poverty cutoff
33%

Weights

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>16.7%</td>
</tr>
<tr>
<td>Child Mortality</td>
<td>16.7%</td>
</tr>
<tr>
<td>Years of Schooling</td>
<td>16.7%</td>
</tr>
<tr>
<td>School Attendance</td>
<td>16.7%</td>
</tr>
<tr>
<td>Cooking Fuel</td>
<td>5.6%</td>
</tr>
<tr>
<td>Improved Sanitation</td>
<td>5.6%</td>
</tr>
<tr>
<td>Safe Drinking Water</td>
<td>5.6%</td>
</tr>
<tr>
<td>Electricity</td>
<td>5.6%</td>
</tr>
<tr>
<td>Flooring</td>
<td>5.6%</td>
</tr>
<tr>
<td>Assets</td>
<td>5.6%</td>
</tr>
</tbody>
</table>
Is John poor?   YES

Poverty cutoff  John’s Deprivation Score
33%            55.6%

Weights
16.7%
16.7%
5.6%
5.6%
5.6%
5.6%
Is Di poor?  NO

Three Dimensions of Poverty

Health
- Nutrition 16.7%
- Child Mortality

Education
- Years of Schooling
- School Attendance

Living Standard
- Cooking Fuel 5.6%
- Improved Sanitation
- Safe Drinking Water 5.6%
- Electricity
- Flooring
- Assets 27.8%

Ten Indicators

Poverty cutoff 33%
Di’s Deprivation Score 0%
Measuring Poverty

The MPI uses the Alkire and Foster (2011) method:

Formula: \( MPI = M_0 = H \times A \)

where

- \( H \) is the Headcount ratio (or Incidence)
  - The percentage of people who are poor
- \( A \) is the Average deprivation score of the poor (or Intensity)
  - On average how much deprivation a poor person suffers at the same time
  - Reflects the joint distribution of deprivation
Useful Properties

Statistical

- **Standard errors** and confidence intervals for all statistics
- **Statistical inference** for all comparisons (level/trend)
- **Validation** for component indicators, alone and jointly
- **Robustness tests** for cutoffs and weights

Axiomatic

- **Decomposability** across populations
- **Breakdown** by indicators or dimensions
- **Ordinality** of data is ok
- **Others**

see *Multidimensional Poverty Measurement and Analysis* by Alkire, Foster, Seth, Santos, Roche, Ballon (OUP 2015)
How are MPIs being used?

Comparable or National Purposes
Comparable MPIs
Eg: Global MPI, ECLAC, UNESCWA

Compare across countries
Like $1.90/day and $3.10/day monetary measures
Could monitor SDG-1
National MPIs

Official statistics reflecting national policy priorities

Ecuador

Mexico

Colombia

Panama

Costa Rica

El Salvador publishes national MPI results
MPIs can be used to:

Complement monetary poverty statistics
Track poverty over time
Allocate resources by sector and by region
Target marginalized regions, groups, or households
Coordinate policy across sectors and subnational levels
Adjust policies by what works measure to manage
Leave No One Behind by tracking the poorest
Be Transparent so all stakeholders engage – NGOs, Private Sector etc., all parts of government
“Poverty measures should reflect the multidimensional nature of poverty.”

Ban Ki Moon (Dec, 2014)  Former UN Secretary General

MPIs provide a headline measure, disaggregations and interlinkages to inform integrated action to complement monetary measures to help Leave No One Behind

“Thank You!”

www.ophi.org.uk  www.mppn.org