

# Nowcasting impact of COVID-19 on multidimensional child poverty

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# Multidimensional child poverty

## Six dimensions:

1. Education
2. Health
3. Nutrition
4. Housing
5. Sanitation
6. Water

## It has been estimated (pre-COVID) that:

- 75% - 80% of children in LMICs experience 'moderate' deprivation in at least one of these dimensions
- 45% - 50% experience at least one 'severe' deprivation
- On average children experience 0.7 severe deprivations and 1.4 moderate deprivations

# Aim, data and approach

## Aim

- To estimate how much multidimensional child poverty might increase due to the COVID-19 pandemic, focusing on three areas: education, health and nutrition.

## Data

- Multi-Indicator and Cluster Surveys (MICS) and Demographic and Health Surveys, between 2012 and 2019, for 72 countries
- Data on impact of COVID-19 on schools, health services and nutrition

## Approach

- Forecasting approach based on conservative estimates (limited indicators and no imputation).

# Method: Education

## Estimate effects of school closures and difficulties in participating in distance learning

- *Moderately deprived*: Children who were moderately deprived before COVID-19 + children who did not access school for more than 10% of the academic year in 2020 and who could not participate properly in distance learning due to overcrowded conditions in the household
- *Severely deprived*: Children who were severely deprived before COVID-19 + children who did not access school for more than 10% of the academic year in 2020 and who do not have access to technologies at home, which allowed them to participate in distance learning programmes

## Additional data:

- School closures (UNESCO)
- Available distance learning programmes (COVID-19 Global Education Recovery Tracker)

# Method: Health

## Estimate the effects of reductions in health services on immunization, acute respiratory illness care and reproductive health services\*

- *Moderately deprived*: Children who were moderately deprived before COVID-19 + children who are at highest risk of not receiving all four vaccinations / are not treated by a professional health service when affected by high fever and heavy coughing / do not have access to modern methods for contraception.
- *Severely deprived*: Children who were severely deprived before COVID-19 + children who are at highest risk of not receiving any vaccination / are not treated by any health service when affected by high fever and heavy coughing / do not have access to any contraception methods.

### Additional data:

- Service disruption in health in 2021: UNICEF Socio-economic impact of the pandemic

\* Vaccinations (new born/very young), respiratory (3-5), reproductive (15-17)

# Method: Nutrition

## Estimate changes in stunting (second year)

- Moderate stunting: Children whose height-for-age is below two standard deviations from the international norm.
- Estimated by shifting distribution based on published estimates of increase in stunting

## Additional data:

- FAO, IFAD, UNICEF, WFP, WHO. The State of Food Security and Nutrition in the World 2021. Transforming Food Systems for Food Security, Improved Nutrition and Affordable Healthy Diets for All.

# Summary of estimates

## Education

- Sharp increase in deprivation (roughly 3.5 times more) in 2020 for both moderate and severe deprivation
- Declining in 2021 but still roughly double the pre-COVID level

## Health

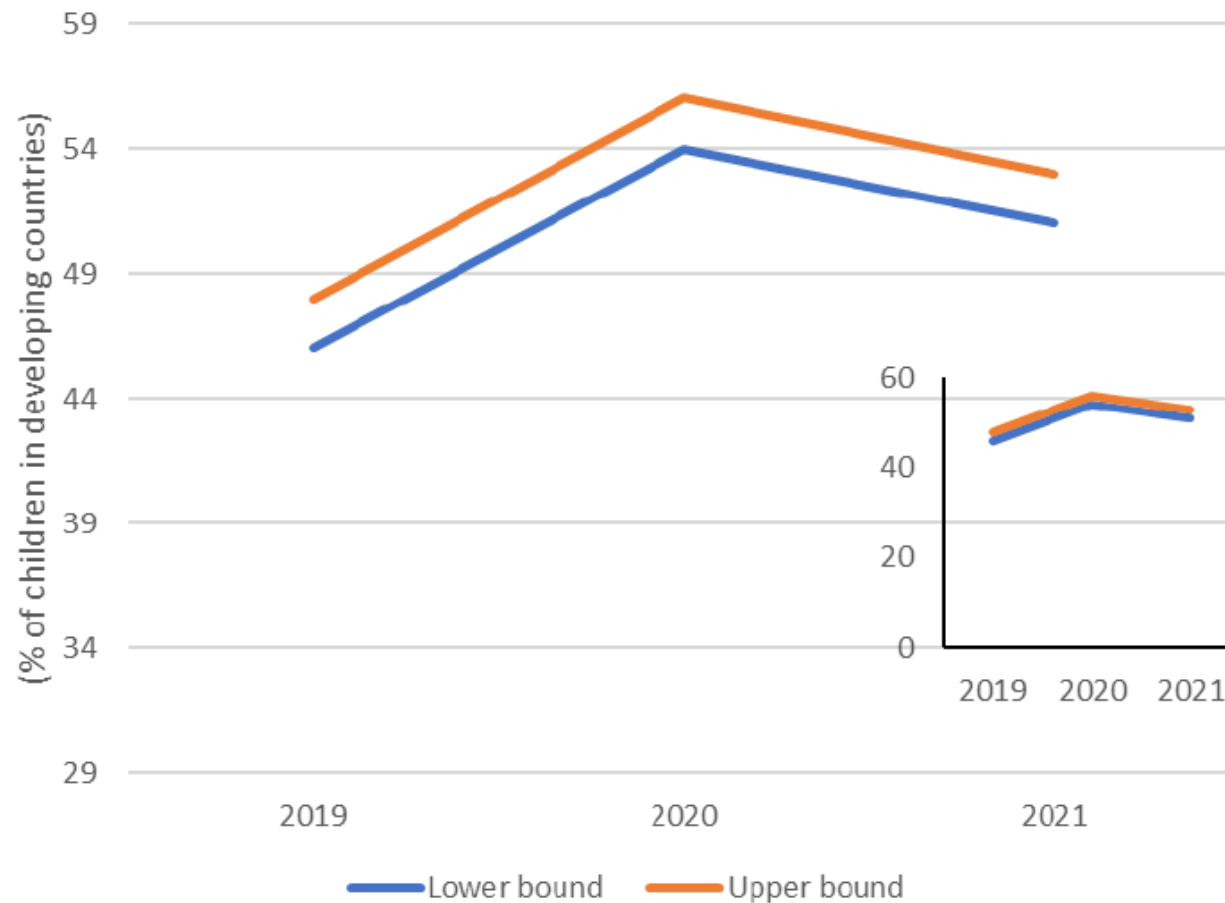
- The proportion of children severely deprived roughly tripled during 2020
- Declining closer to baseline in 2021

## Nutrition

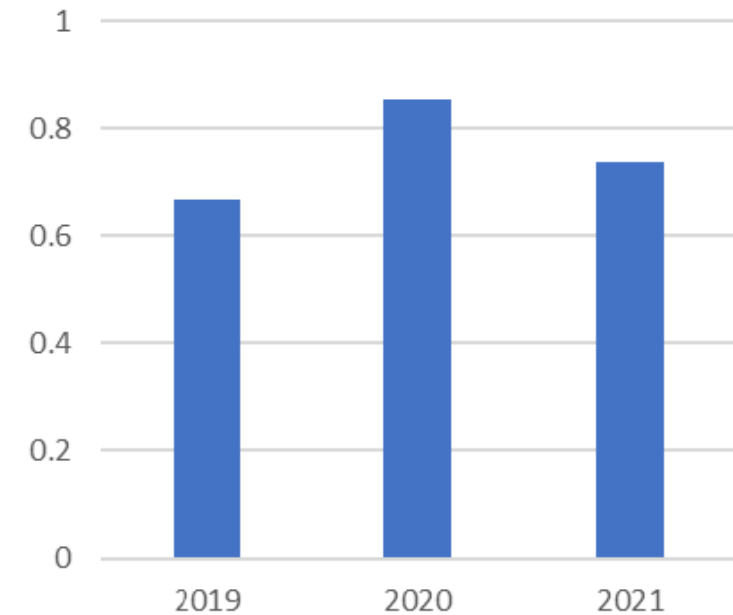
- Not estimated for 2020 due to presumed lag
- In 2021, stunting could increase by up to one percentage point. Seems small but millions of children and long-term impacts

# Overall multidimensional child poverty

Figure 1: Child Poverty (severe thresholds of material deprivation): Projected increases in 2020 and 2021



Average # of deprivations per child





# Further information

Fiala, O., Kielem, A., Delamonica, E., Obaidy, M., Espinoza-Delgado, J., Giacomponello, M. & Cid Martinez, I. (2022) Nowcasting impact of COVID-19 on multidimensional child poverty. *Statistical Journal of the IAOS -1*, 1–7. doi:10.3233/SJI-220060

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