Technical Note: Impact of COVID-19 on Child Poverty

As it is well known, children suffer poverty differently from adults. Moreover, children are not supposed to be earning a living on their own. Thus, measures of monetary poverty only provide a partial (and indirect) assessment of the plight of poverty among children. A direct measure incorporating the actual material shortcomings suffered by children is needed.

UNICEF, thus, has estimated, the level, breadth, and severity of child poverty, based on shortcomings in education, health, housing, nutrition, sanitation, and water. This information is available for almost 80 countries. They represent almost a third of developing countries' child population. Using severe thresholds of deprivation in each of these dimensions, about 45% of children in developing countries suffer at least one deprivation. This number is about 75% of children if "moderate" deprivations are used and is even higher if all dimensions are characterized by more stringent standards. Moreover, on average, children suffer two thirds a deprivation at the severe thresholds and 1.4 deprivations at the moderate threshold.

However, this was the situation pre-COVID. Unfortunately, the situation is worse now. Moreover, about six months into the pandemic, not all the negative impacts have been felt.

Some of the elements that constitute and are used to measure child poverty do not change quickly, even in the case of a major shock. For instance, for children who have access to safe drinking water at home, their situation does not change due to a pandemic. Even in the case of a recession, it would take several months for individual families' economic dislocation to force them to move to lodgings without access to safe drinking water. It would take even longer for the accumulation of these cases to be noticeable in national averages. Something similar applies to stunting and overcrowding.

Thus, in order to estimate the impact of COVID-19 (and the lockdown-type initiatives to control and contain it) in the short run, only the dimensions that are affected quickly are analyzed. This gives us a picture of the situation about six months into the pandemic.

The two dimensions that are affected most rapidly are: education (due to the immediate effect of school closures) and health (due to the disruption of health services). Most countries have put in place full or partial restrictions on debts, rental contracts, and evictions (https://data.unicef.org/resources/government-responses-due-to-covid-19-affected-populations/?utm_source=newsletter&utm_medium=email&utm_campaign=COVID-19%20government%20measures_migration_dashboard). This means indicators such as access to drinking water or overcrowding are not expected to move very fast in the current context.

Fortunately, also, most governments have set up distance education to continue children's learning. They are based on distributing lessons via radio, TV, or mobile phones/laptops. However, for children to be able to participate, they need to have access to these elements. Most countries use a combination of them (e.g. Radio and TV). If children have none of the ones used in their country, they are excluded of distance learning and could be counted as severely deprived of education. However, even if they have these elements but they live in overcrowded conditions, they will not be able to benefit from the distance

learning system very well. Thus, they can be said to be partially excluded and to fall under moderate deprivation in the education dimension.

Another factor to consider is that among these children, there may be many who were already counted as poor because they were lacking in other dimensions (e.g. in access to sanitation). Based on this information (i.e. if children are fully or partially excluded of distance learning and had no other deprivation before COVID struck), we estimate the additional number of children in poverty using severe and moderate thresholds due to school closures combined with difficulties to access distance learning.

In addition, an adjustment is made in terms of population dynamics. For example, children who were 17 at the time of the survey are no longer considered to assess education deprivation as they would no longer be children in the period after the emergence of COVID. These children are replaced by children who were five years of age at the time of the survey and consequently of school age a year later.

The situation in health is a bit more complicated. Health services (whether they are immunization, preventive, or curative) have been disrupted to varying degrees in different countries. We have information on this from periodic country office reporting against an evolving questionnaire to assess the socio-economic impact of the pandemic as well as disruption of social services (https://data.unicef.org/resources/rapid-situation-tracking-covid-19-socioeconomic-impacts-data-viz/).

We also have information on the determinants of the probability that children will or will not be immunized based on their background characteristics. For children who had attained the age to be fully immunized before the pandemic struck, their immunization is not taken away. However, for children who were less than 12 months of age and should have been immunized during the first half of this year, we can combine the information on service disruption and probability of being vaccinated, to estimate how many additional children should be considered severely and moderately deprived of vaccination. In order to maximize the use of prior information, this probability is combined for each child depending on whether they have already received some vaccination prior to their first birthday to obtain a ranking of children from the most likely to the least likely to be immunized.

Both the likelihood they would be severely or moderately deprived is estimated, at the level of the prevailing national immunization rate. This would yield the "pre-COVID" likely rate of deprivation. This number is used as a baseline among the younger cohort. Then, the country specific rate of disruption of immunization services is used to estimate the percentage and number of additional children deprived in immunization based on the ranking of likelihood of being immunized.

For instance, if services declined by 10 %, the immunization rate (nationally) would also decline and the incidence of deprivation in health due to immunization would go up. For each country a range, based on country-specific data or from neighboring countries with similar COVID-19 incidence, is estimated using a minimum and maximum estimation of service disruption.

The same is done for Acute Respiratory Illness treatment and for access to Reproductive Health services. However, for these two interventions the number of observations is too small to properly estimate a ranking of probabilities so only their background characteristics are used (including the presence of deprivation in other dimensions constituting child poverty). For these three health interventions, as for education, a dynamic population replacement effect is taken into account.

However, this means that the pool from which additional children can be found to fall into poverty is small. Basically, three one-year cohorts are taken into account. This represents a small fraction of all children.

Nevertheless, as in many countries the disruptions have been significant. Thus, it is possible to find the new percentage and number of children who are poor due only to shortcomings in the health dimension.

In addition, the possible overlap of children becoming poor due both to the education and health dimensions should be taken into account in order to avoid double counting. Thus, not only is the total of additional children suffering from child poverty due to COVID as of mid-2020 is projected/simulated but also, the average number of deprivations children suffer, i.e. how much poorer children are.