

STARTING EARLY: Developmental Screenings Can Increase a Child's Potential

DETAILED METHODOLOGY

DATA

The data used in this policy brief includes educational records from the Mississippi Department of Education and claims data from the Mississippi Division of Medicaid. These data sources were linked using a series of identifiers common to each data source. The data used in our analysis included kindergarten students enrolled in the Mississippi public school system during the 2014-2015 school year who had also been enrolled in Medicaid at any point during the period of 2013-2015.

LINKING DATA

The method for linking MDE and DOM data together involved a deterministic linking algorithm that matched individuals based on a series of four demographic attributes. This included: date of birth, race, gender, and the first three characters from first and last name. For an individual to be successfully linked between both files, all attributes must have been successfully matched between the two data sources. This process involved generating a 22-character string based on these demographic attributes for each data source, and then using that identification string as a common key to link variables into a larger, combined dataset. IBM SPSS statistical software was used for this linking process. Any nonmatches (that is, an individual who truly existed in both datasets but was not successfully matched) would be a rare occurrence, and only due to insufficient or missing data from the original data source. Given that there is no known reference, in the MDE records or elsewhere, for the number of kindergarten students that are enrolled in Medicaid, we were unable to produce performance metrics for our linking algorithm. That is, it is not possible to determine in many cases whether a nonmatch was due to an actual lack of overlap in the datasets or a failure of the algorithm to properly detect a true match.

ANALYTIC SAMPLE

Our overall analysis included kindergarten students enrolled in the Mississippi public school system during the 2014-2015 school year who had also been enrolled in Medicaid at any point during the period of 2013-2015. Using the process outlined above, educational records from MDE were linked to Medicaid claims data. The student-level MDE masterfile included 42,391 kindergartners who were enrolled during the 2014-2015 school year. Of these cases, 27,813 were enrolled in Medicaid at any time during January 1, 2013 to September 30, 2015. Depending on the analysis, our analytic sample was sometimes limited to those cases which were continuously enrolled for a specified duration. Therefore, the total number of cases retained in any given analysis may have been less than 27,813.

EPSDT CLAIMS

Medicaid claims data contains procedure codes for patient visits. All Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) screenings (procedure codes 9938X/9939X) were identified, counted, and matched to Medicaid beneficiaries, which were then matched to the same individuals in the MDE records for analysis.

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