Data Analytics Benefits Snapshot

The Centers for Medicare & Medicaid Services (CMS) reported that the use of data analytics in the Medicare program has resulted in millions of dollars in cost avoidance savings and recoveries, indicating great potential for cost avoidance and recoveries in the Medicaid program.[1] Combining relevant data with the right analytical and interpretive tools can assist State Medicaid agencies (SMAs) in identifying improper payments before they are made and in identifying those SMAs should recover. Data analytics consist of "a variety of techniques to analyze and interpret data." Two common techniques are predictive data analytics and data mining.

Predictive analytics can identify fraud and errors before payments are made. For example, this model analyzes historical provider data to see if it matches the pattern of a known scheme.[2] Data mining can assist in the identification of improper payments after the fact.[3] Data mining involves "the application of database technology and techniques, such as statistical modeling to uncover hidden patterns and subtle relationships in data and to infer rules that allow for the prediction of future results."[4]

Data analytics can be a powerful tool for Medicaid program integrity administrators. Advantages of using data analytics include a positive return on investment that can exceed that of traditional methods, the ability to garner information used to identify past improper payments and prevent future improper payments, and strengthening existing anti-fraud strategies.[5]

SMAs can use the information gained from the data analytic techniques to put more effective edits and prior authorization requirements into place, develop new and more effective models for post-payment audits and recoveries, and develop more effective provider education.[6] States can also use new emerging data sources, such as Medicare data and the Transformed Medicaid Statistical Information System (T-MSIS), to promote targets for intervention, identify best practices, and maximize efficiencies.[7]

SMAs should invest in data analytics and set ground rules to match the data analysis method and purpose. Prior to implementing a data analytics system for program integrity purposes, SMAs may want to consider CMS guidance. CMS guidance suggests factors SMAs must consider, which include but are not limited to what information will be actionable for the organization, whether the State MMIS system will support the type of data analysis desired, and the full cost of implementing the new tool including the cost for licenses, training, and support.[8]

SMAs should carefully and judiciously review the data identified through data analytics, and other relevant evidence. If the review supports the conclusion that a pending claim is fraudulent, the SMA is required to suspend payments pending resolution of the investigation, unless there is good cause not to do so.[9]

For More Information

To see the electronic version of this and other E-bulletins and for more information on other program integrity topics, visit the Medicaid Program Integrity Education page posted to https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/Medicaid-Integrity-Education/edmic-landing.html on the CMS website.

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