

Introduction

PIE Analytics developed the PerformCare Predictive Model to help staff identify youth at risk for out-of-home treatment, to disrupt that trajectory, and to support youth in the community when appropriate. The predictive model was developed using five years of claims, authorization, and CYBER data to identify those factors that impact risk for out-of-home treatment.

Front Page

The front page is your home for navigating the predictive model. Here, you will find five years' worth of data on a rolling basis about active youth within the PerformCare system. This dataset will be refreshed on the 15th of every month and show the active youth over the last five years.

You will see the number of youth categorized within each risk category from Low to High risk. Beneath those numbers, you will find the various dashboards based on each view of the data. Finally, in the bottom right-hand corner, you will find a link to this training video, and a youth search function.

SDOH HotSpot Dashboard

The Social Determinants of Health or SDOH Dashboard shows the number of active youth within each County. You can filter and slice the data based on one of three factors on the right-hand side. First is education risk, high, medium, and low-risk counties based on the census. The education risk is based on the high school graduation rate within each County. Second is poverty risk, which is high, medium, and low-risk counties for poverty based on the census. Finally, there is the risk of out-of-home treatment, which is the number of youth who are high, high medium, low medium, and low risk for out-of-home treatment. One thing to note is that the education and poverty risk categories change depending on which counties are highlighted, while the risk of OOH

treatment changes the number of youth within each county. Although the SDOH factors take longer to change over time, the education and poverty risk is updated annually based on census updates.

At any time, you can hover over the various counties and view how many youths are within that county based on the selection you made on the right-hand side. You can also right-click on the county and drill down to see the details of the variables that impact those youth. Finally, you can right-click on any individual youth to show the details regarding that specific individual's diagnosis and any appropriate psychotropic medication.

One thing you will notice is the home icon on this dashboard. Every dashboard will have this icon. If you click on it, it will send you back to the dashboard's home page to help you navigate. You will also notice that the names of the dashboards are at the bottom of the page. You can click on them and go directly to the dashboard you're looking for.

CANS Dashboard

This dashboard shows only the sub-domains on the Child and Adolescent Need and Strengths assessment that are predictive of out-of-home treatment. At the top of the page, you can stratify the population shown on the dashboard based on the predictive model risk categories (high, high medium, low medium, and low). This ability to stratify the population-based on risk is available on every dashboard page.

The visualizations below show whether evidence exists or not in the record regarding each sub-domain. At the top, you can filter these data by risk category, and the visualization will show which factors have evidence of that sub-domain's impact on the child's needs or strengths. At any time, you can hover over the colored areas to see the number of youth who do or do not have evidence of this sub-domain in the record. You can also right-click to drill down to a table displaying all the variables impacting those youth and right-click on the table to drill down to a specific youth's diagnosis and associated prescription information.

Impact of Services for Risk of Out of Home Treatment

This dashboard shows services that impact the risk of out-of-home treatment. The services listed on the dashboard can provide clinicians with indicators that, when present, may increase the chance of out-of-home treatment for children and youth. The services listed here do not mean you should avoid them. There are many practical needs to implement or refrain from services, and you will use your clinical moxie gained over years of experience. The presence of these services means you may wish to learn more about the youth as you may prevent out-of-home placement by intervening early.

At the top of the page, you can stratify the population shown on the dashboard based on the predictive model risk categories (high, high medium, and low medium). You'll notice we removed the low-risk level on this visualization. Our testing found that the low-risk numbers were so large that it made the visualizations useless. We will show you how to find the low-risk population on the report builder if needed.

The next area shows four services and the presence or absence of that service for the population of youth. You can click on the Y or N at the top of each service to filter the population on whether or not they have that service. Y means yes, they have the service, and N means they do not have that service. Once you've filtered the dashboard, the data is showing information about other services: gender, race, and age at first service changes to just the population you've filtered on.

As on all of the other dashboards, if you right-click on the part of a visual, you can drill down to show all the associated data for those individuals based on your choice. If you right-click again, you will see an individual youth's associated diagnosis and psychotropic medications for that one youth.

Impact of Services for Remaining at Home

This dashboard shows services that impact youth remaining at home. As per the previous dashboard, the services listed on this dashboard can provide clinicians with indicators that, when present, may increase the chance the youth or child will remain in the home. The services listed here do not mean you should not use these services. There are many practical needs to implement or refrain from services, and you will use your clinical moxie gained over years of experience to make that decision. The presence of these services means you may wish to learn more about the youth as you may want to review them in the youth's plan of care.

At the top of the page, you have the ability to stratify the population shown on the dashboard based on the predictive model risk categories (high, high medium, and low medium). You'll notice we removed the low-risk level on this visualization. Our testing found that the low-risk numbers were so large that it made the visualizations useless and made it hard to read the charts below. We will show you how to find the low-risk population on the report builder if needed.

The next area shows three services and the presence or absence of that service for the population of youth. You can click on the Y or N at the top of each service to filter the population on whether or not they have that service. In this case, Y means yes, they have the service, no means they do not have that service. Once you've filtered the dashboard, the data showing information about other services: gender, race, and age at first service changes to just the population you've filtered on.

As on all of the other dashboards, if you right-click on the part of a visual, you can drill down to show all the associated data for those individuals based on your choice. If you right-click again, you will see an individual youth's associated diagnosis and psychotropic medications for that one youth.

Finally, you can click on the next page to see more services because there are several more services to view. Once there, you can either click the next page or the previous page to move back and forth to the other service listings.

Report Builder

The report builder allows you to Create Summary and Detailed Reports using the data reviewed by PIE Analytics. It includes both predictive elements and descriptive elements such as diagnosis. (You requested access to all the data examined to create the predictive model, and this is where you will find it.)

On this dashboard, we have given you a table of the important variables that potentially impact out-of-home treatment and may be affecting youth under your care. At the top, you can filter this table by the risk category, county, education risk, and poverty risk—the table below changes to show only those youth based on the filters you've chosen. The right-hand side will show the top 10 diagnoses and the number of active youth. If you click on a diagnosis, the table on the left will filter further to show just those youth who have a documented diagnosis in their record.

Finally, once you've completed choosing your filters, you can hover over the right side of the top of the table and click on the three dots. It will allow you to export the underlying data based on the filter choices you've made.

Psychotropics

Here is an example of a descriptive report derived from the data in the report builder. It is regarding psychotropic medications. This dashboard shows all active youth who have filled at least one psychotropic medication by risk band and the number of youth by age, race, and gender. At the top, you can filter the dashboard based on high, high-medium, and low-medium risk. Please note that we have eliminated the low-risk level as that category's overwhelming content made meaningful data visualizations challenging. The right-hand side shows the number of prescriptions within each medication drug class.

The report is very interactive: you can click on any variable or value, and the data will filter to show just those youth who have the variable or value. For example, you can click on the light blue color in Member Gender and select only males, and the dashboard will show you the related data for just male members. If you hold control and click on other areas, such as race, it will filter the data accordingly. So, if we hold

control and click Black (or African-American), it will show black males on the data visualizations.

As on all of the other dashboards, if you right-click on the part of a visual, you can drill down to show all the associated data for those individuals based on your choice. If you right-click again, you will see an individual youth's associated diagnosis and psychotropic medications.

Individual Youth Search

Finally, you may want to know the predictive variables and values for a youth you're engaged with. We make this easy for you. You can enter the MemberID for that youth you're looking for, and the data on that youth will be shown on the dashboard. You'll be able to see the diagnoses, psychotropics, and associated services for this individual youth.