

Allegheny County DHS Uses NLP to Unlock the Data in Case Notes, Saving Caseworkers Time & Better Serving Families.

Allegheny County, Pennsylvania is home to the city of Pittsburgh and more than 1.4 million people. The people of Allegheny are served by a Department of Human Services (DHS), whose vision is “to create an accessible, culturally competent, integrated and comprehensive human services system that ensures individually tailored, seamless and holistic services to Allegheny County residents, in particular, the county’s vulnerable populations.”



Within DHS, the Office of Children, Youth and Families (CYF) is responsible for ensuring child welfare. Their work is supported by the Office of Analytics, Technology and Planning (ATP) in the areas of technology use, policy development, quality improvement, planning and decision-making through research, analysis, and engagement. The result is a strong partnership between technology and practice that has established DHS as a widely recognized leader in innovative practices and use of technology that supports and improves child welfare practice.

The team at ATP has long known that easy access to and analysis of the data in unstructured text – such as case notes, safety plans, assessments, etc. – could be a game-changer for child welfare case teams. Per Maryn Formley, Casework Specialist Supervisor, “There are thousands of places where our systems require a paragraph, a description, or another note. There is rich data in the notes. Those notes tell the story of that family.” As a former case worker and now operations lead for KIDS (DHS’s child welfare case management system), Maryn understands the importance of case knowledge and understanding across the entire case team - and the role technology can play in furthering that knowledge. The ATP team found the solution to their challenge with Augintel’s natural language processing (NLP) products.

Allegheny chose to begin their Augintel implementation with a pilot of 80 caseworkers, clinicians, supervisors, specialists, and paralegals. This cross-functional team was responsible for tagging data, testing functionality, and assessing accuracy. One tactic used by ATP to test usability involved a "scavenger hunt," where ATP compared time to locate case information using Augintel to their existing case management system. The pilot team was able to demonstrate that Augintel located the information more quickly and saved case workers' valuable time.

Upon success of the pilot phase, Allegheny moved to full rollout across more than 400 CYF staff. Going from pilot to rollout took less than six months, and DHS quickly started seeing results where they matter most – field teams. Caseworker Cristy Bearden estimates that Augintel is saving her five hours per week previously spent combing through cases notes for information or prepping for court, that she can now spend focusing on more impactful tasks.

Asked about her use of Augintel for court prep, Cristy said, "I saved so much time prepping for court. And while in court, any time there was a question, I was able to search the notes and give the judge the answer very quickly." Typically, in the days before a court hearing, Cristy will take time to re-read the case and make notes, hoping to have answers to any questions the judge might ask. "Using Augintel, it was just all right there for me."

Asked about other uses for Augintel, Cristy elaborated, "I am regularly using Augintel for my weekly supervision reviews. I can quickly get anything my supervisor asks me, such as 'Did you engage the fathers? Did you get specific medical information back?'" Cristy also sees value when covering for another case worker. Augintel allows her to quickly come up to speed on the case by easily identifying the family's risks and strengths from Augintel's case dashboard and when specific topics like mental health or drug and alcohol abuse may have been discussed. But Cristy's favorite use of Augintel is family-finding. "I had a child who had to be removed from the home, and I was struggling to find a family placement. I recalled that much earlier in the case, there had been mention of other relatives. However, the case covered many years, and the file was huge. I may have never been able to find the note referencing those relatives. Using Augintel, I quickly found those notes and identified a grandmother. I was able to place the child with the grandmother and avoid that child going to foster care."

The team at ATP is excited about Allegheny County's early success with Augintel. When asked about future plans, Formley said, "We are listening to our current users about new ways to improve the use of the tool, analyzing what we can learn from unstructured data, and planning for use in other programs areas within DHS such as housing and family support."