



CASE STUDY

Reimagining care delivery using AI/ML

FOR A FLORIDA-BASED PRIMARY CARE GROUP



HealthEM.AI

AI-enabled technologies have the potential to transform the way hospitals and health organizations deliver care management services.

AI can help prevent worsening of chronic condition, identify changes in a patient's medical state, assist with disease diagnosis, and tailor interventions to each individual's needs with the right infrastructure, collaborations, and buy-in from clinicians and patients. As a result, patients and communities gain more value through improved quality of care.



GOAL

The client is a Florida-based primary care group that focuses on caring for medicare lives and keeping them active and healthy. They serve over 35,000 Medicare Advantage patients under value-based arrangements.

They wanted to improve patient engagement by creating 360-degree patient profiles (retrospective, concurrent and predictive) and optimizing care management workflows to improve their existing rules-based risk scoring systems.

To that end, they partnered with HealthEM.AI to standardize and improve quality of care and reduce avoidable acute care costs and disease progression through risk stratification.

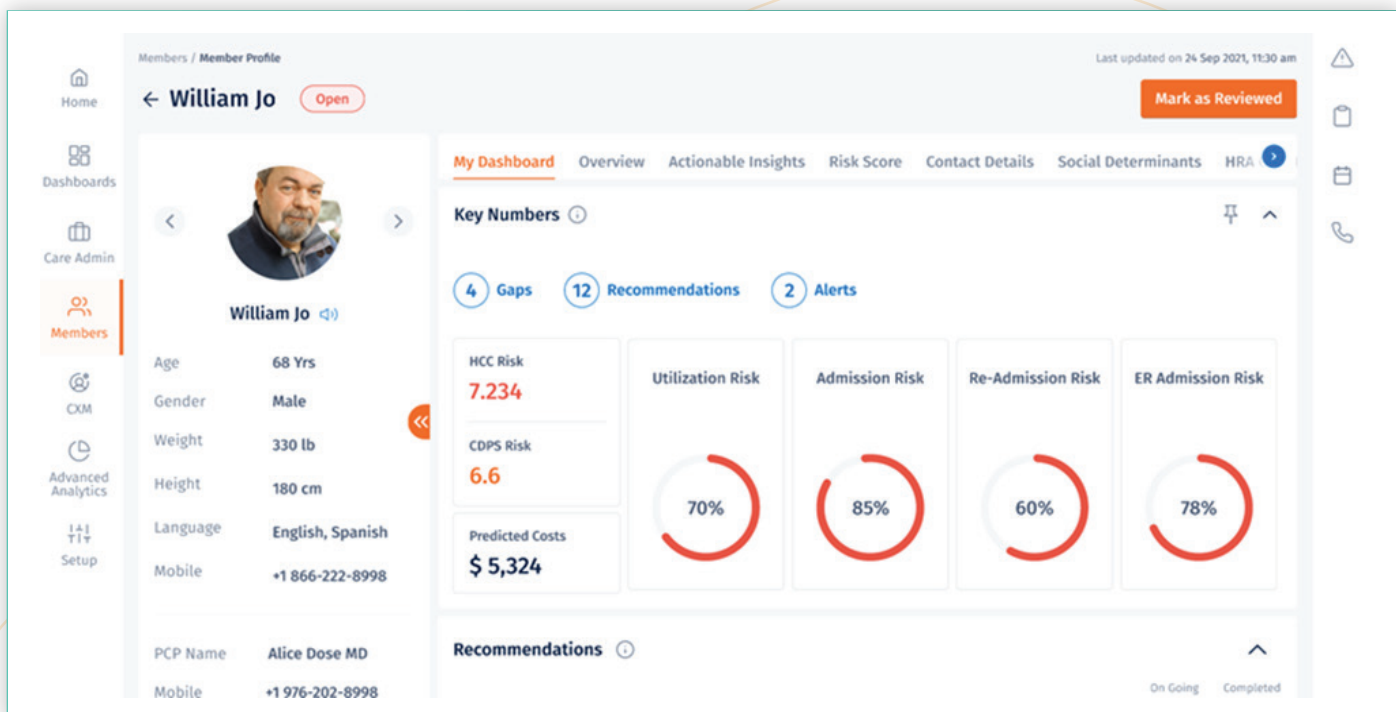
OUR SOLUTION

HealthEM.AI collaborated closely with the client team to replace their existing outdated care management platform with a comprehensive array of AI-driven care management solutions. We integrated primary care provider applications with 360-degree unified patient records to create a holistic view of cost, utilization, specialty, risk, and quality data.

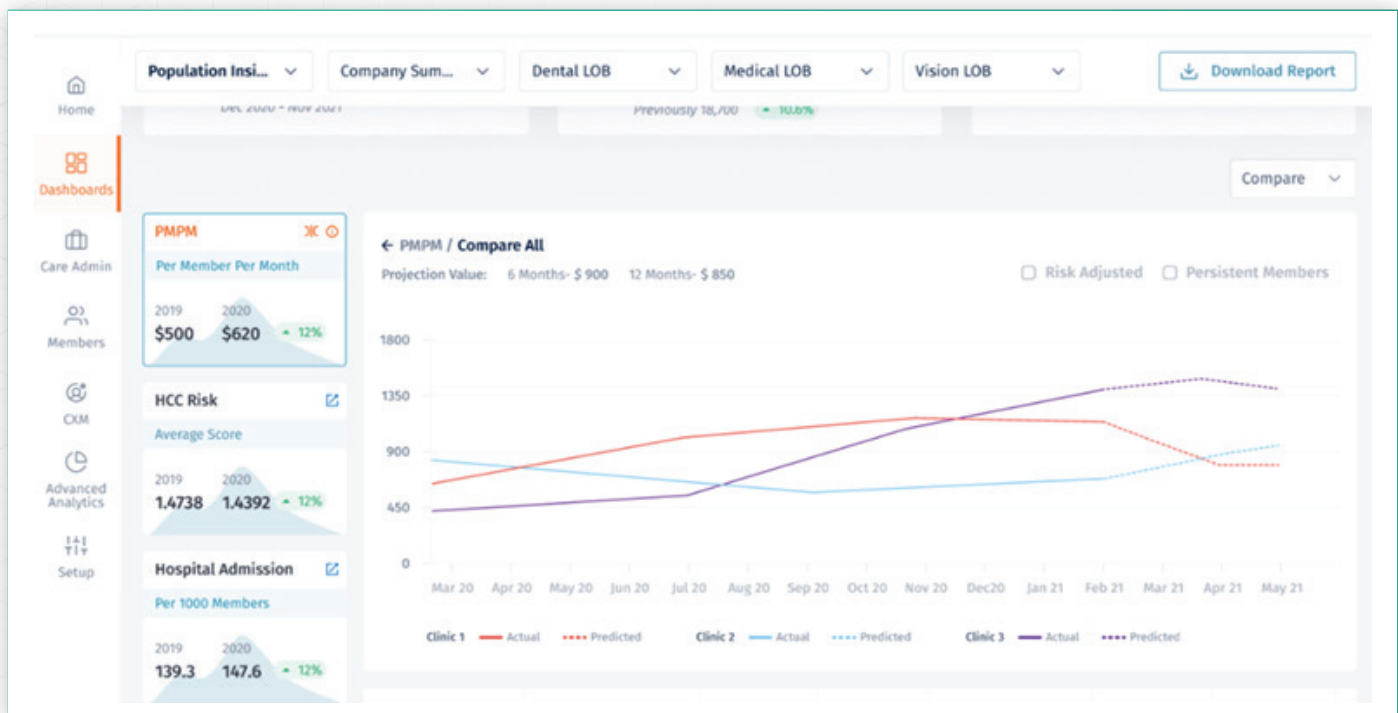
HealthEM helped the client create a single trusted patient data source that included claims, eligibility, clinical and social determinants of health (SDOH), and electronic medical records (EMR). The platform enabled the client to assimilate and normalize historical patient data. By combining this data with social determinants of health, we created an AI/ML model that predicts future health care costs, hospital admissions, and emergency room visits based on this data.

A 360-degree member record enabled care managers to identify members at the highest risk, both clinically and non-clinically. With this data, the client could determine which patients were at risk, the reason, and required mitigation steps for immediate interventions. In addition, a dashboard of recommendations was created to track patient outcomes before and after interventions.

Patient profile



Analytics dashboard



Through contextual adoption of AI/ML, HealthEM.AI is helping the client improve care delivery without changing the way that care managers work. The care management platform now uses traditional care plans and social services, but with risk stratification driven by AI/ML. This has resulted in a 75% change of priority case mix to focus on. The total size of the panel that the care manager is touching stays the same, but the AI-based stratification can have a vast difference on which patients are touched first.

After the success of the first four, five more clinics were added, and a uniform care plan was developed in the HealthEM.AI application to standardize care. HealthEM.AI's next version will use AI/ML to forecast and track the appropriate intervention at the patient level.



“By empowering care delivery using AI to stratify risk and enabling patient-specific chronic workflows, the client was able to reduce hospital admissions by 28%. Furthermore, the inclusion of social determinants of health (SDOH) vulnerability into risk stratification promoted health equity, significantly improving revenue optimization, operational efficiency, and patient experience,” said

Pradeep Kumar Jain,
Chief Customer Officer, HealthEM.AI



OUTCOMES

- + HealthEM platform was implemented across their care management team, leading to enhanced high-risk patient stratification and a **28% reduction** in hospital admission per 1,000
- + Surfacing of AI /ML insights through the **risk-stratified patient list** makes them actionable
- + Reduced manual processes by minimizing the time spent by risk analysts
- + With an accuracy of **90.2%** and precision of **69.7%**, the model predicted the likelihood of patient admissions and emergency room events for the coming 3/6/9 and 12 months
- + Several aggregations and transformation techniques created treatment plans to generate **~1,500** features from patient health data, cost data, and social attributes
- + **75%** net new patients in highest risk stratification when compared to baseline list leading to the 28% reduction in general admissions
- + Promoted greater health equity through the inclusion of social determinants of health (SDOH) vulnerability in the overall risk stratification

MAKING A DIFFERENCE

1 Application of SDOH to risk stratification in a Total Care Management approach reduces acute care

Emma, the client's social worker, received a referral for a patient named Ava (name changed) from a care manager using the HealthEM risk stratification list. Ava did not want to remain in her mobile home as she had several complaints about where she lived. Emma spent some time with her to discuss the situation. During the conversations, Ava told Emma about a traumatic incident that she had never disclosed to anyone. Her life has taken on new meaning as Ava has been attending the senior center per the social worker's guidance. Now that Ava feels supported, she looks forward to Emma's visits. In an emergency, Ava knows to contact Emma. A therapeutic approach has successfully been established.

2 Going Beyond traditional new patient onboarding

Mr. Lobo (name changed) was a relatively new patient who was not anchored to routine care, but also did not have any history of acute care episodes. His profile seldom hit top priority work queues of care managers. As a new patient, he was unengaged. He did not respond to any voicemails or letters from our client. The HealthEM Total Care Management risk stratification recommended that the care manager learn more about this 'risky' patient. His name appeared on three of the risk priority lists: High Cost, Never Never, and Hemodialysis Patient. Upon locating the dialysis center, the care manager met to educate him about his primary care physician (PCP) and the available case management services. With the help of his PCP, he has become a compliant patient. The importance of community outreach can be seen in this example.

For more information,
visit <https://www.healthem-ai>

