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(57) Abstract :

The present invention relates to the development of the framework uses sophisticated algorithms to find subtle patterns and prediction signals that traditional approaches frequently miss by leveraging a variety of clinical and demographic data. Through the integration of personalized risk assessment and real-time data analysis, the system improves diagnostic precision and facilitates prompt intervention. Across several datasets, our method shows notable gains in sensitivity and specificity, underscoring its potential to revolutionize CVD care. The ultimate goal of this framework is to lower the morbidity and mortality linked to cardiovascular diseases by supporting proactive patient care as well as helping doctors make well-informed decisions. The work provides a scalable method that can be used to many healthcare settings and highlights the potential of artificial intelligence to transform healthcare through precision medicine. FIG.1

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