ABSTRACT

The remarkable growth of technology has the potential to lower total expenses for chronic disease management and prevention. For a better prognosis, support clinical judgments, genomic data is being incorporated to retain accurate information in the electronic health record, in the hands of medical professionals and genomic experts in the near future. The computerized health record is a necessary component of good health for the workflow of professionals. There are numerous obstacles for the effective use of EHR and genetic data for the purposes of research and to improve outcomes in health care, personalized medicine is being used. In India, the seeming perfect AADHAR card has provided a foundation for digitally preserving population-based information. That allows citizens of India to gain from a variety of government initiatives, which might be directed either to the state or the central. DOHAD has shown that chronological information combined with implicit growth stages throughout a patient's therapeutic duration provides useful medical forecasts and diagnoses. The G-Card will be more precise and satisfy pretty much any time aim if it follows India's electronic health records guidelines. It's also worth noting that the patient's visitors may be diverse in terms of qualifications, location, and compliance.

Recognizing the success of the human genome sequencing and the rich insights it has provided, non-human genetic drafting may increase current biology knowledge. The cost of genomic technologies has decreased, and its application and utilization have improved. A microarray chip contains sequenced genomic data that is analyzed by a computer to provide insights and predictions. Researchers also urge that every subject sees a doctor at least once in a short span of time, not just in times of distress, but also at minimum once in every shorter timeframe, to acquire medication for their health based on their DNA. It may disclose some

really important ideas that individuals typically dismiss. Individuals in India are generally unconcerned regarding their health until they are confronted with something very dangerous. This is a very disruptive mind set that must be eradicated. Individuals should be forced to consider that wellness is the most important objective. Leading a healthier lifestyle will assist them in accomplishing all of their other goals, not only for themselves but also for others they care about.

Smart cards have been used extensively to store and retrieve complicated data with convenience and mobility. The proposed format takes into account historical EHR data, organized health parameter data, unstructured imaging/genomic data, and real-time data IoT devices collected semi-structured crucial parameter data. The schema that has been proposed may reduce the additional strain on the healthcare system by issuing a warning or alarm depending on data analysis that is automated and sophisticated. The proposed research compares tree-based prediction algorithms. This will assist develop a model to forecast future influenza-A virus strains for hem agglutinin (HA) and neuraminidase (NA) glycoproteins based on past flu mutation patterns. In this work, we examined the HA (hem agglutinin) and NA (neuraminidase) protein sequences of four influenza A subtypes: H1N1, H5N1, H3N2, and H9N2. For forecasting future sequences, we used Decision Trees, Random Forests, Extra Trees, and Multi-output Meta estimator ensembles. It predicts the progeny of the input flu strain. For the performance evaluation of the four ensemble approaches, we used holdout, random test-train split and K-fold classification techniques. According to the findings, Random Forest outperforms Decision tree, Extra tree, and Multi output Meta estimator approaches in terms of mean absolute error, root mean square error, and R2 score based on machine learning techniques-by training offspring and parental sequencing, by showing their phylogenetic relationship between them.