PREDICTING DISEASE WITH WEATHER

TECHNICAL FIELD
Big Data

APPLICATION
Forecasting disease attacks via dynamic weather models.

DESCRIPTION
Our team of physicians, healthcare professionals, statisticians and meteorologists has developed mathematical models to predict when weather conditions increase risk of an acute, near-term attack of common medical conditions, including heart, respiratory, and neurological diseases. Our models assess dynamic weather conditions in real/near time to create customizable weather-disease attack risk models. Our models are especially useful to health care systems’ population health management programs and health care payors. Our models can help optimize strategies that engage patients during high-risk periods to reduce preventable medical costs while improving care outcomes and quality. Our models also seamlessly integrate into digital/mHealth platforms by integrating into apps that engage the patient when weather conditions (alone or in conjunction with other risk factors) place them at increased risk for a disease attack and then provide them actionable options to prevent or mitigate the attack.

We have tested and validated our weather-disease attack risk model for migraine. The result is a migraine early warning system that is ideally suited for a digital/mHealth personal health solution in conjunction with a healthcare system or within a smart device application. Our methods for creating weather-disease attack risk models will initiate a new arena in healthcare by leveraging weather to predict disease.

US PATENT PENDING

ADVANTAGES
- Customizable weather-disease attack risk models
- Portable & scalable
- Provides sensitive & specific attack risk

INVENTORS
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