

Automatic jurisdiction designation within Houston's electronic disease surveillance system



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Houston Health Department built a data processor to obtain and validate patient addresses from city services to verify a patient's jurisdiction. This saved many hours of manual work and promoted timely and accurate data reporting.

The "What"

Jurisdiction designation is crucial for investigation and daily reporting. Houston Health Department's (HHD) Maven-based Houston Electronic Disease Surveillance System has a built-in algorithm that analyzes incoming addresses and assigns jurisdiction. However, due to the extremely high volume during the COVID-19 pandemic, the system could not keep up.



The "So What"

The data surveillance staff built a processor in-house instead of using a contractor. A data processor was developed to obtain new addresses outside the system and send them to city services for verification to determine jurisdiction. Once the results were acquired, a

series of updates were made to the database. The entire process was fully automated using Python and structured query language (SQL). This process saved countless hours of manual work, enabling Houston to report daily numbers accurately and in a timely manner.

The "Now What"

HHD will continue to innovate its surveillance processes. However, this innovation will be dependent on continuous public funding from the Centers for Disease Control and Prevention (CDC).

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