



## Mass Vitals adopts AI for file intake and capture to make public health data more accessible and secure

### OVERVIEW

Massachusetts Registry of Vital Records and Statistics is responsible for maintaining and issuing copies of vital records. These documents, including statistics on births, deaths, divorces, and marriages, are used to understand the population, promote wellness and ensure health equity within the commonwealth.

### CHALLENGES

The Registry is responsible for maintaining decades worth of physical records and information that the public can request at any time. Due to the sheer and ever-growing quantity of data and documents that the department is responsible for maintaining, it lends itself to some key challenges that impact employee efficiency and records request response time.

01

#### Too much time spent on document search and retrieval

The average time spent to manually locate, retrieve and copy each record request was 10 minutes.

02

#### Information accessibility

Documents were only available in a physical format that had to be accessed by a time-consuming indexing process.

03

#### Lack of protection and security of sensitive information

Physical documents were at risk of damage from daily wear, theft, and natural disaster.





## SOLUTION

The Registry recognized the need to modernize its records retrieval process, reduce records request time, and increase employee productivity. The Vitals team utilized DataBank's Content Intelligence solution to create a secure, searchable system to replace their manual indexing books. As each historic record was digitized, it was run through cloud-based capture tools using artificial intelligence to extract key data points from the records. An accuracy rate was assigned to each data point and anything that didn't meet requirements was routed into a queue for validation. This human-in-the-loop approach reduced record request times and improved security and compliance measures.

01

### Data Intake

DataBank team built an on-site intake process to manage all scanning/imaging.

02

### Capture & extract

Digital files are then transferred to an AWS-powered cloud-based capture & extraction which uses AI and machine learning technology.

03

### Human-in-the-loop validation

Any data point that did not meet the confidence rating was moved into a queue system for human verification.

04

### Delivery

Validated data was pushed to a secure, cloud based portal.

05

### A better way to work

Today, the portal is utilized by the MASS Vitals team to quickly and efficiently locate digital records, cutting request times dramatically.

## DISASTER AVOIDED

Following the implementation of the Registry's content management system, a pipe burst in the vault, compromising hundreds of indexing books and birth and death records. Fortunately, due to the foresight of the Massachusetts Vitals and DataBank teams, the solution was already in place before disaster struck, allowing quick action that preserved thousands of documents that otherwise could have been damaged or destroyed. Within three weeks of the incident, the Registry could locate its compromised documents digitally in its new environment.



'I've dealt with many vendors in my career. This project has been the most successful project by far. They've dealt with unforeseen anomalies more than once and delivered without asking for a change order. "Easy to work with" is an understatement.'

Robert Lebel, Project Manager  
Massachusetts Registry of Vital Records and Statistics

## RESULTS

By extracting and validating critical data points for these records, the Registry cut down manual document search and retrieval time from 10 minutes per search to 3 minutes or less. The custom portal developed by DataBank has also given staff better accessibility to the records without compromising security, compliance, and adds additional protection against unpredicted risks like loss or destruction. AI & machine learning incorporated into the cloud-based capture improves the process over time meaning that these results will only grow as the system processes more of their records.

- 01 Decrease in records search and retrieval time from 10 minutes to 3 minutes or less
- 02 Greater document accessibility for employees across the agency
- 03 Improved document security and compliance

## VISION

Following the organization, preservation, and increased accessibility of these documents, the Registry now has an opportunity to discover trends throughout the data that can uncover profound insights into its population. This includes understanding trends in cause of death, discovering potential investments in healthcare, and promoting overall population wellness for years to come.

