



# PUBLIC HEALTH DATA MANAGEMENT SOLUTION (DMS)

A COMPREHENSIVE SOLUTION TO SUPPORT  
DISEASE SURVEILLANCE AND OUTBREAK MITIGATION

Powered by Casetivity

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## Efficient, Practical and Sustainable Public Health Solutions

This pandemic has proven that Public Health organizations need business process management tools that automate key tasks and streamline workflows. Furthermore, with a range of existing tools already in use, organizations need flexible applications compatible with existing systems already in place.

At Strategic Solutions Groups (SSG) we've combined our 17 years of experience in Public Health with state-of-the-art technology solutions to build the Public Health Data Management Solution (DMS) – a purpose-built application designed to address today's growing burden on public health. DMS automates data cleansing, validation, and workflow processes, thus streamlining administrative workloads and creating more capacity for increased services and protecting communities. DMS is a flexible application that can be deployed within a matter of days for rapid go-live and immediate results.

Lab result processing is a growing burden on public health systems. High volumes of test data and disparate non-standard data submissions add to the workload. The DMS application automates data collection and cleansing to standardize it for easier management, analysis and reporting.

### File Validation and Onboarding

DMS allows laboratory report data submitters to upload example files to conduct initial content validation before they are allowed to submit data directly to your ELR or HIE system.

- Allow organizations to test file submissions to see results and make corrections
- Track the progress of data submitter file validation

The following screen shot shows the error messages provided to a data submitter after they upload a sample file for validation against state-specific business rules.

The screenshot displays the 'Review and Submit Results' interface. At the top, there are navigation options: 'Cancel Task' and 'Back To Case'. Below this, a task summary shows 'Review and Submit Results' assigned to 'John Schaeffer'. A table summarizes the file upload results:

Total Record Count	Skipped Records	Clean Records	Records with Errors
3	0	2	2

Below the summary, a section titled 'Record Errors (must be fixed)' lists three rows of errors:

Row	Input Text	Error
2	[Sam][WHITE][101 Bat Street Line 2 of address][bostonest[2114][MA][617-983-0000][DATE:1592539200000][NASOPHARYNGEAL]2020-Test1[COVID-19 (Coronavirus Disease 2019), PCR]Not Detected[Test Facility 1][Warren Medical Facility][Dr. Chris Smith][305 South St][Boston][MA][617-983-8800	Last name is required
2	[Sam][WHITE][101 Bat Street Line 2 of address][bostonest[2114][MA][617-983-0000][DATE:1592539200000][NASOPHARYNGEAL]2020-Test1[COVID-19 (Coronavirus Disease 2019), PCR]Not Detected[Test Facility 1][Warren Medical Facility][Dr. Chris Smith][305 South St][Boston][MA][617-983-8800	Date of birth is required
3	[Bethwo][Male][caucasian][test[Ethnicity][DATE:402984000000][Worcester][1601][MA][617-9835555][DATE:1592539200000][NASOPHARYNGEAL]2020-Test2[COVID-19 (Coronavirus Disease 2019), PCR][Detected[Test Facility 1][Warren Medical Facility][Dr. Chris Smith][305 South St][Boston][MA][617-983-8800	Last name is required

At the bottom of the interface, there are buttons for 'Cancel', 'Re-Upload File', 'Cancel File Upload', and 'I Need Help'. A page number '129' is visible in the bottom right corner.

Screen allowing data submitters to identify and self-correct any validation errors associated with their files

## Ongoing Data Cleansing and Standardization

In addition to supporting the initial one-time file validation, DMS also can be deployed into the production data processing workflow to:

- Easily configure and update validation rules
- Automate data cleansing to standardize the varied data formats submitted and translate local codes to state required codes
- Improve data quality with features like zip code to city validation
- Manage and notify labs that stop sending data
- Utilize robust, machine learning based, patient Deduplication algorithms

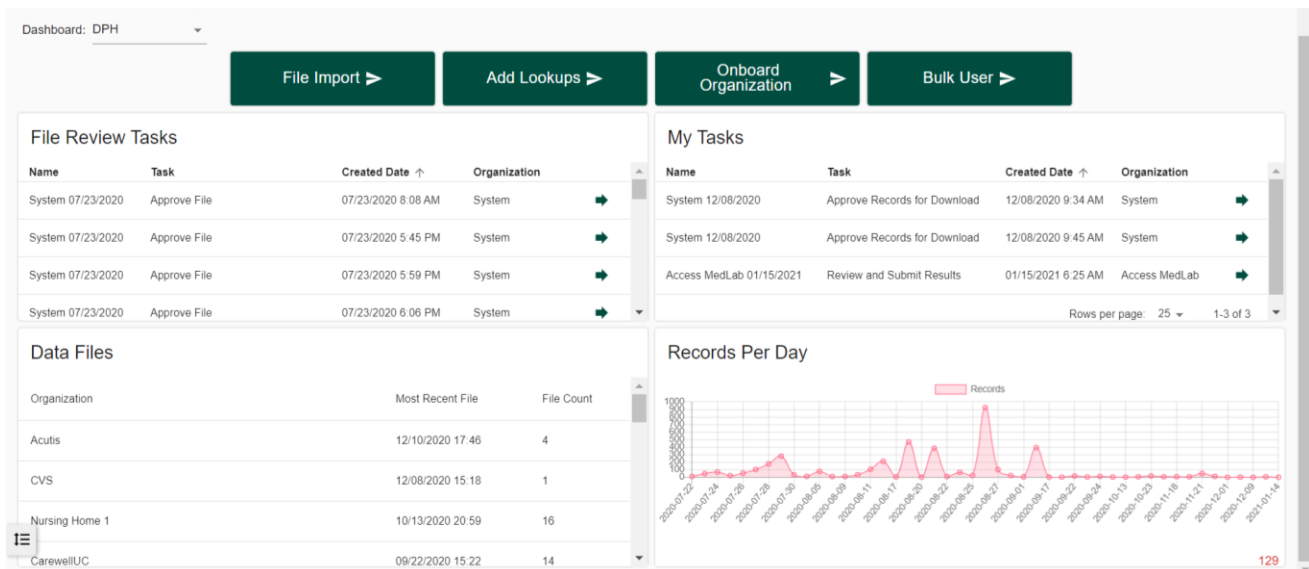
Code	Display	Sort Order	active
RAPID SARS COV 2 AG, QLI IA, RESPIRATORY SPECIMEN	94558-4		✓
SARS-Cov-2 (COVID-19) – 384 Well Method	MDPH-324		✓
SARS_COV	94558-4		✓
ANTIGEN	94558-4		✓
CORONAVIRUS DISEASE (COVID-19) VIRUS TESTING BY RT-PCR	MDPH-324		✓
SARS-COV-2, RT PCR	MDPH-324		✓
BD RAPID ANTIGEN	94558-4		✓

Screen for managing local to state code set mappings

## Enterprise Analytics and Integration

DMS also includes a robust analytics engine and standards-based integrations. So, your organization will be able to easily manage and integrate the solution.

- Realize the benefits of self-service report analytics for situational awareness, decision making and process optimization.
- DMS has industry standards-based Application Programming Interfaces (API's) to easily integrate into Enterprise IT environments and with any existing Electronic Laboratory Reporting or Disease Surveillance systems.
- Reduce manual work associated with monitoring and managing data submitter activity.



Dashboards and Reporting allow enable easy analytics and workflow monitoring