



## Application for 2021 University of California Larry L. Sautter Award for Innovation in Information Technology

Project Title	Online Solution for Return-to-work Safety Plans
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### Summary

Essential employees at UC medical units and campus departments have been at risk of contracting COVID-19 during the pandemic. RSS helped these locations protect their employees by providing a way to create customized, electronically shareable, infectious disease preparedness and response plans.

### The Problem

In 2020, OSHA issued guidance on returning to work safely during the COVID-19 pandemic which “focuses on the need for employers to develop and implement strategies for basic hygiene (e.g., hand hygiene, cleaning and disinfection), social distancing, identification and isolation of sick employees, workplace controls and flexibilities, and employee training.”[1]

After RSS communicated with administrators at UC medical units about creating a return-to-work plan that would address OSHA’s recommendations, it became clear that a solution beyond a simple PDF document was needed if they were to effectively respond to the threat of COVID-19 in the workplace. The following goals for the solution were identified:

- Key leaders at medical units needed a way to efficiently collaborate across departments and organizational levels on the creation of their plan that included a review process
- Organizations within the UC system have different approval procedures and the solution needed to be flexible enough to accommodate unique workflows
- Version tracking was a necessary requirement to handle plan changes as health and safety guidance evolved over time
- With potentially large numbers of employees viewing the plans, the solution needed to automatically distribute new versions of a plan and track employee acknowledgements
- Once a plan is executed, the ability to perform audits was necessary to verify the effectiveness of a plan’s safety and health controls

## Solution

To help UC medical units and campuses address these dangers to health as quickly as possible, RSS created the Worksite Specific Safety Plan (WSSP) solution. WSSP is an online solution that provides a flexible workflow for a plan’s creation and review, version control, email notifications, electronic employee acknowledgement, and plan adherence auditing.

### Workflow

WSSP’s flexible workflow provides ways for the plan to be reviewed by various departments and organizational levels.

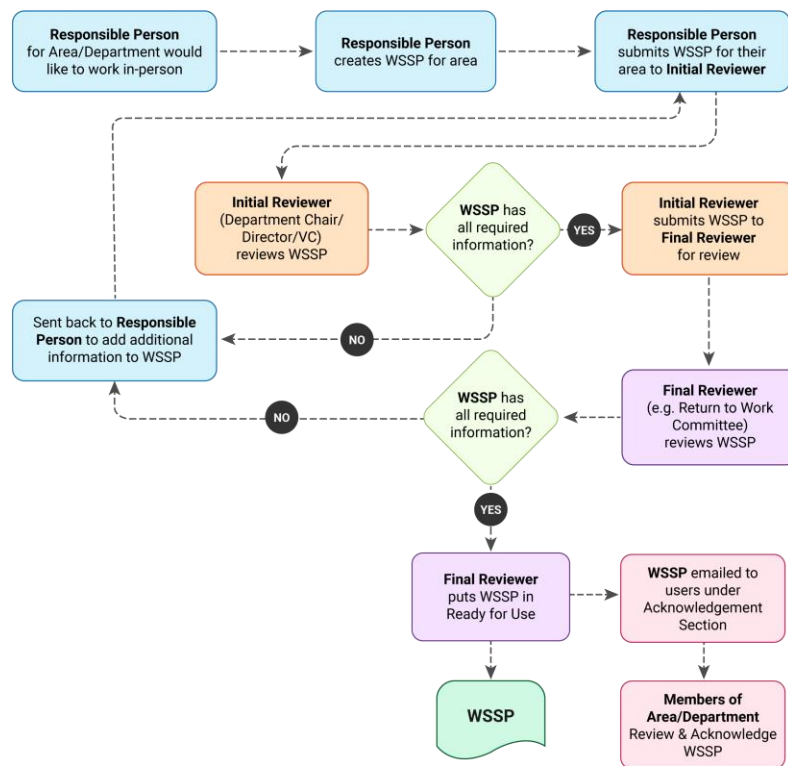


Figure 1 – WSSP Plan Creation Workflow

### Version Control

Version control allows only the most current version to be viewed by plan members which ensures they get the most up-to-date safety information.

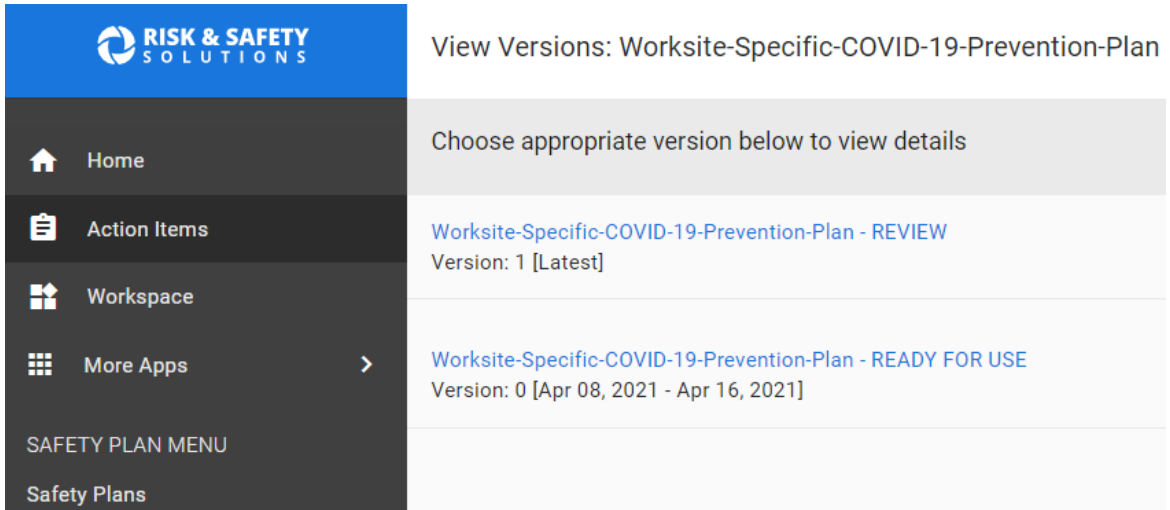


Figure 2 - Owner's View of COVID-19 Prevention Plan Versions

### Member Data

The online form collects member emails as they are added so that plan members are automatically notified when new versions are released. Acknowledgements for the current version are collected in one place eliminating the need to track physical signatures.

#### COVID-19 Prevention Training Acknowledgement

Name	Signature Date
Russell Ilejay	May 20, 2021
Angelle Cheung	May 20, 2021
Matthew Beckman	Not yet signed

Figure 3 - Employee Acknowledgment Page

## Auditing

WSSP integrates with our RSS mobile inspection solution which allows inspectors to easily audit units for plan adherence.

### A. SIGNAGE \* ▼

1. There is signage at each public entrance informing all employees, patients, and visitors to maintain a minimum six-foot distance from one another whenever possible	✘	✓	N/A
2. Copy of the Safe and Physical Distancing Protocol is posted at each public entrance to the facility.	✘	✓	N/A

Figure 4 – Inspect Checklist Example for Safe and Physical Distancing Protocol

## Deployment and Project Success

Within three weeks of identifying the need for the WSSP solution, the system was deployed and the first medical center plan was being distributed to employees. Since Q2 of 2020, three of the five UC medical centers have been using the system, and it was adopted by UC Riverside in Q1 of 2021. To date there are 787 active COVID-19-related plans in use.

The level of control and employee interaction that WSSP provides is becoming a standard that other universities across the nation are looking to. In April of this year, Howard University sought out and purchased the service from RSS after benchmarking their own return-to-work plans against UC Riverside’s use of WSSP.

## User Impact

The most important impact of WSSP to users is that vital information regarding health and safety is being provided in a uniform, timely manner to frontline employees who must work on-site to perform their jobs. Because version control is a part of WSSP’s design, administrators can be certain that all employees are viewing the same plan and are being provided the most up-to-date information on staying safe during the pandemic such as wearing a mask or no mask and N-95 masks. With features in the software such as the ability to use templates and clone previous plans, new plans can be created more swiftly to get safety information into the hands of employees faster. Automatic emailing to the list of plan members speeds up distribution allowing administrators to focus their time on patient care.

## Technology

The technology used for creating WSSP is a multi-language environment running Mongo, Neptune & Elasticsearch for the database. The back-end services use Node.js and Java. WSSP services are hosted on the AWS Cloud.

## Reference List

[1] OSHA Online. (2021, May). Occupational Health and Safety Administration [Online]. Available: <https://www.osha.gov/sites/default/files/publications/OSHA4045.pdf>