As cases of COVID surge across the country, healthcare providers, government agencies, community organizations and employers need to know which communities and individuals are most vulnerable in an outbreak. Jvion’s COVID Response Suite leverages our AI CORE and data science to identify the individuals and communities who are most vulnerable if exposed to the coronavirus – informing containment, prevention and ongoing disease management decisions.

Navigating COVID Risks with Clinical AI

Find vulnerable patients, strategize a proactive response, and allocate resources effectively

The COVID Response Suite is a multi-pronged solution for managing patient risk, community exposure and critical resource allocation. Built on Jvion’s AI CORE, which analyzes the de-identified health data of more than 30 million Americans, the suite delivers:

- Community vulnerability insights to inform COVID response plans at the state, county, city, and block-group level
- Patient risk stratification lists to help protect the most vulnerable from infection
- Near real-time risk assessments to inform difficult triage decisions
- Employee vulnerability insights to inform back-to-work and distribution decisions

Leverage Jvion’s clinical AI to gain data insights and shift from a reactive to proactive pandemic response.

COVID Response Modules

Community Vulnerability Map
Publicly available resource that surfaces the communities at greatest risk for severe outcomes once infected and the socioeconomic factors influencing that risk down to the block group level.

Patient Vulnerability List
List of patients at-risk for hospitalization and/or mortality if infected along with the clinical and socioeconomic risk factors influencing that risk before they present to the hospital.

Inpatient Triage Assessment
Close to the time of admission, identify who across the entire current patient population is most in need for an intense respiratory intervention or at risk for inpatient mortality.

Employer Recovery Package
Understand workforce and community vulnerability to COVID exposure and infection for the purpose of informing back to work and logistics planning.
Community Vulnerability Map

A publicly available interactive map, built on the Microsoft Azure platform, that identifies communities across the U.S. at greater risk for experiencing hospitalizations and deaths during a COVID outbreak. The map also surfaces the socioeconomic factors influencing that risk, with resolution at the census block group level.

These insights can help:

**Providers**
- Map vulnerable communities to available hospitals/beds
- Deploy outreach and other services to mitigate patient exposure and surge

**Payers**
- Identify geographic clusters of vulnerable members
- Align outreach and resources to socioeconomic needs
- Help members manage chronic conditions during stay at home mandates

**Government Agencies**
- Enhance surge, resource usage, and economic forecasting
- Inform economic and community recovery planning
- Strategically protect at-risk VA Employees

Patient Vulnerability List

Jvion’s Patient Vulnerability Lists are built by combining customer’s claims data with Jvion’s CORE. The lists stratifies patients based on risk for hospitalization, end organ failure, or death as a result of contracting a COVID-like respiratory virus – and the clinical and socioeconomic factors driving this risk. These insights can help:

**Providers**
- Target patient outreach for telehealth, mail order pharmacy enrollment, and other virtual services that help minimize exposure to infection
- Inform social distancing education campaigns
- Identify areas where mobile testing or other in-community services would be beneficial to prevent spread

**Payers**
- Prioritize outreach to members with chronic conditions to ensure compliance during shelter-in-place
- Align outreach and resources to socioeconomic needs
- Reduce healthcare costs by intervening before patients require hospitalization

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Inpatient Triage Assessment

Jvion’s Inpatient Triage Assessment provides near real-time identification of the patients at greatest risk for mortality, and those who may need extreme respiratory support. It can also guide decision-making around discharge, ICU bed capacity, and allocation of other critical resources.

By accelerating triage decisions, Jvion can help manage patient capacity.

Employer Recovery Package

The Employer Recovery package helps organizations acting as employers inform back to work plans by understanding employee vulnerability and community exposure risks that impact logistics planning.

Information gathered from employer-sponsored health plans and/or surveys distributed to employees and their dependents is processed through Jvion’s AI CORE. The output identifies the risk of a negative outcome resulting from COVID infection for each employee and dependent for which information is collected. This information can be used to:

- Match high-risk employees to low-exposure assignments
- Target outreach and education to at-risk employees and their families to prevent infection
- Reduce healthcare expenses from COVID infections

Underlying Jvion and geolocation data is also available to complement existing data science and modeling efforts. This helps inform:

- Supply chain/distribution decisions
- Missed work estimates
- Sales estimates
- Return to campus/work decisions

Jvion allows employers to use data to navigate the risks of re-opening.
The Data Science Behind the COVID Response Suite

Jvion analyzed the de-identified data of 30 million Americans and developed an algorithm to predict which individuals are at greatest risk for poor outcomes related to COVID, including hospitalization, need for ventilator support, and mortality.

Given the limited data on COVID outcomes, Jvion modeled parallel disease states to understand the risk drivers for similar viruses that can lead to acute respiratory illness and organ failure, such as influenza. Jvion combined this clinical data with publicly available (from government agencies including the USDA, EPA, and DOT) and third-party data sources on factors like food and retail access, length of job commute, and transportation to calculate risk for every US census block.

Jvion combined existing data on similar conditions and third-party data on socioeconomic factors to model community risk for COVID.