

# Key Features & Performance Specifications

## Monthly Reports

Data sets are refreshed often, sometimes daily. Refreshed insights are reported monthly to support decision-making with the best available information and intelligence.

## Supply Chain Mapping

USP enhances US FDA public data with international, trade and USP proprietary data. Labeler, finished drug product (FDP) manufacturer, and active pharmaceutical ingredient (API) manufacturer facilities are linked to the 9-digit National Drug Codes (NDCs) to provide end-to-end supply chain visibility.

## Drug Shortage Predictions

USP's drug resiliency model leverages neural networks to analyze hundreds of drug/ facility/ organization characteristics to predict the likelihood that a drug may be in shortage in 4-6 months and 7-12 months, giving stakeholders time to prepare for shortages.

## Quantified Drug Shortage Drivers

The healthcare industry specializes in diagnosis before treatment, and it should be no different for drug shortages. Risk contributors, like historic shortages, site inspections and market economics, are delineated within Medicine Supply Map so users can understand what is driving risk in a product and take targeted mitigation actions.

## Market Share Data

Drugs with high shortage vulnerability and large market share pose the greatest shortage risk. With integrated market share data, the model prioritizes drugs where shortages will have the highest impact.

## Inspection Results, Warning Letters, and Recalls

The monthly Medicine Supply Map reports include the latest FDA inspection results, warning letters, and manufacturer recalls – all of importance when evaluating drug shortage warning signals.

## Dashboard

The report dashboard visualizes trends in drug supply resiliency, giving insight into the overall number of shortages and high-risk drugs as shortage pressures increase or decrease.

## Model Performance Transparency

Model performance results are published monthly, including accuracy, false positive and false negative rates

Feature	Performance Specification
FDP manufacturing facility location mapping to NDC	91% of generic finished drug products
Labeler facility location mapping to NDC	100%
API manufacturing facility location mapping to NDC	62% of top 500 APIs by NSP IQVIA unit sales, 44% of all generic APIs <sup>1</sup>
Drug shortage prediction accuracy	93% <sup>2</sup>
False positive rate (drugs with vulnerability score >50% that did not go into shortage in past 12 months)	27% <sup>3</sup>
False negative rate (drugs with vulnerability score >50% that did go into shortage in past 12 months)	26% <sup>4</sup>

<sup>1</sup> Based on 2023 NSP IQVIA Data.

<sup>2</sup> Based on 2023 monthly Model Performance. Performance can vary from month to month.

<sup>3</sup> Based on January 2024 Model Performance.

<sup>4</sup> Based on January 2024 Model Performance.

For more information, contact [msm@usp.org](mailto:msm@usp.org)



**Visibility to build a stronger  
supply chain.**

 **Medicine  
SupplyMap**

