

Amid staffing crises, health equity challenges and the long reach of the COVID-19 pandemic, American healthcare faced intense pressure in 2022. For the Surescripts Network Alliance, one mandate was clear: keep evolving together. These healthcare professionals and organizations leveraged the Surescripts network to exchange an unprecedented volume of trusted health intelligence—while making that intelligence simpler to act on.

Throughout the year, the Network Alliance expanded interoperability and put it to work, giving clinicians and care managers the patient insights and the power to make better informed decisions. They helped optimize medication choices for affordability and adherence throughout the care journey. They made it possible to get specialty medications to patients' hands in less time, with less effort.

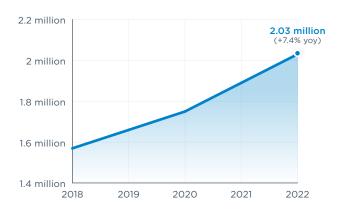
In an era of great uncertainty, they kept finding new and better ways to deliver the care patients deserve. Read on to explore the progress we made together.

Raising the bar for network integrity at scale

In order to thrive, healthcare needs access to a great deal of patient intelligence. But healthcare organizations need to be certain that their patient intelligence will be protected from threats, shared with those who truly need it, and dependable—that is, accurate, complete, up-to-date and available whenever it's needed.

In 2022, we worked across the Network Alliance to continually raise the bar for access, security and performance. Connecting nearly all electronic health records (EHR) vendors, pharmacy benefit managers, pharmacies and clinicians—plus health plans, long-term and post-acute care organizations, analytics vendors and specialty pharmacy organizations—the Network Alliance grew larger and exchanged more health intelligence than ever in 2022.

Unique healthcare professionals & provider organizations connected



Network transactions



*Medication History deduplication initiated

99.99% network uptime

Maintained certification with HITRUST, SOC2, the Electronic Healthcare Network Accreditation Commission (EHNAC) and DirectTrust

More than 99%

of the U.S. population represented in our Master Patient Index

0.04 seconds to retrieve an accurate patient match on average

IMPACT

Referential patient matching makes medication histories more complete

Health intelligence sharing begins with accurate patient identification, so patient matching enhancements improve everything from checking patient benefits to updating clinical history.

The proprietary algorithm that powers the Surescripts Master Patient Index got an upgrade in 2022 with the addition of patient reference records, including demographic data such as name, name changes, date of birth, and current and prior addresses.

Gains in patient and medication information were significant:

Additional data found for more than **400,000 patients** in a single day

4% more medications identified across all Medication History responses in December 2022

Advancing & celebrating data quality gains

Since 2016, Surescripts has measured factors that could impact the prescribing process by calculating a Quality Index Score. Our network-wide **Quality Index Score rose 5% in 2022**. In total, it has increased **over 200% since 2016**.

One key factor driving this increase came from improvements to the use of Structured & Codified Sig, which standardizes the patient directions field for e-prescriptions. We worked closely with several EHR vendors to identify drug classes where implementing Structured & Codified Sig would be most appropriate and have the greatest impact. This helped Sig quality rise throughout the year, and 23% of new prescriptions contained Structured & Codified Sig information at year's end.

We also continued to make Medication History responses more complete and easier to navigate with automated data augmentation and deduplication.



of medication history responses augmented with additional information



of medication history responses streamlined by removing duplicate medication records

2022 White Coat Award winners

In 2022, we recognized the pharmacies, health systems, EHR vendors and pharmacy technology vendors across the Network Alliance that worked together to improve e-prescription accuracy. The 2022 White Coat Award celebrated winners in three categories: Highest Accuracy, RxChange Champion and Structured & Codified Sig Champion.

Winners

Baptist Health

BestRx Pharmacy Software

CenterWell Pharmacy

CompuGroup Medical US (CGM eMDs and CGM APRIMA)

DAW Systems, Inc. (ScriptSure Cloud ERX)

Johns Hopkins Medicine

MEDENT

Mercy

NowRx Pharmacy

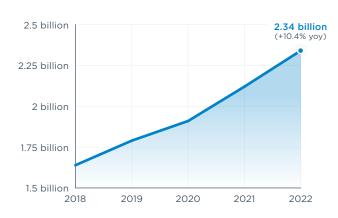
The University of Kansas Health System

Walmart

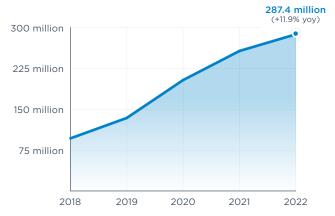
E-Prescribing

There's no better example of what healthcare can achieve by working together at scale than the adoption of electronic prescribing. Wherever medications are prescribed and filled, E-Prescribing brings greater clarity and efficiency to prescriber/pharmacist communication, leaving far less room for errors that can impact patient safety. In 2022, the number of prescribers using E-Prescribing grew 7.9%, reaching 1.23 million and joining virtually all pharmacies in the U.S.

E-prescriptions filled



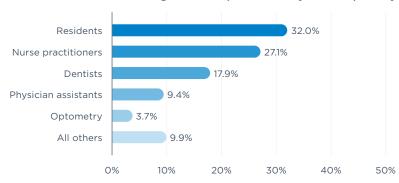
E-prescriptions for controlled substances filled



Where did new e-prescribers come from in 2022?

Just five types of prescriber roles and specialties made up nine-tenths of the growth in e-prescribers in 2022.

Share of growth in e-prescribers by role or specialty



E-Prescribing for Controlled Substances (EPCS)

EPCS brings extra safety and security to controlled substance prescriptions. As of December 2022, 35 states had enacted legislation that mandates the use of e-prescribing for all prescriptions, all controlled substance prescriptions, or a subset of controlled substance prescriptions, typically those for opioids. In 2022, virtually all pharmacies were enabled for EPCS, and the number of e-prescribers enabled for EPCS increased 9.5%.

E-prescriber enablement for EPCS



Note: 1.23 million total e-prescribers were active on the Surescripts network in 2022.

CancelRx

CancelRx lets prescribers notify pharmacists electronically when they need to cancel a prescription, avoiding the need to fax or call and preventing patients from receiving medications they shouldn't be taking.

CancelRx enablement



1.23 million e-prescribers and more than 61,000 retail pharmacies were active on the Surescripts network in 2022

CancelRx requests 149.1 million (+41.6% yoy) 120 million 80 million 40 million 2018 2019 2020 2021 2022

RxChange

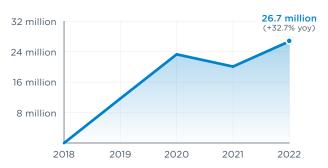
RxChange makes it simpler for pharmacists and prescribers to optimize prescriptions together. When a pharmacist wants to suggest a less costly medication alternative to the prescriber—or alert them that a prior authorization is required—they can use this transaction to send a request and get a response electronically.

RxChange enablement

E-prescribers		Pharmacies	
2022	58.3%	2022	74.6%
2021	53.5%	2021	73.6%
2020	47.2%	2020	65.7%

1.23 million e-prescribers and more than 61,000 retail pharmacies were active on the Surescripts network in 2022

RxChange transactions



IMPACT

CancelRx resolves medication list discrepancies

UW Health implemented the CancelRx transaction to ensure that when prescribers discontinue medications, pharmacies get notified. In 2022, researchers from the University of Wisconsin, Madison published a study examining the results:1

Percent of discontinued medications successfully canceled at the pharmacy

Before CancelRx

With CancelRx

34%

93%

Average time for a discontinuation order to reach the pharmacy

Before CancelRx

With CancelRx

12.93 hours

Instantaneous

66

That 12 hours is very impactful when a prescriber might prescribe something unintentionally in error and want to call that prescription back.

—Michelle Chui, Pharm.D., University of Wisconsin, Madison

IMPACT

Health systems see immediate results with Medication History for Reconciliation

In 2022, KLAS Research surveyed 20 health systems about their experience implementing Medication History for Reconciliation.³ All reported that they would choose to implement the solution again, and **90% saw outcomes immediately**.

Outcomes achieved

Closing of gaps in patient medication histories

Support with e-prescribing

Visibility into medications filled outside of the organization

Improved patient safety

Information suggesting a greater need for reconciliation than expected

"

Medication History is reliable. The information is instantaneous. The product integrates with our EMR nicely, and the workflow to reconcile the data is simple.

health system analyst

Making interoperability an everyday reality

When patient information is out of reach or out of sight, danger emerges. Incomplete clinical history can interfere with diagnosis. Unseen medications can cause adverse drug events. Trouble accessing the patient data needed for administrative tasks can delay care.

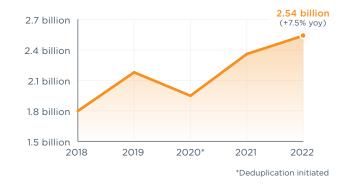
Meanwhile, the promise of value-based care remains hard to realize, and clinician burnout looms. In one survey, 4 in 5 physicians said the inability to share data between information systems increased stress levels, and 59% reported feeling frustrated on a weekly basis by the challenges of accessing clinical information.²

One remedy is interoperability—the ability for information to flow efficiently across systems—and information sharing that lets our evolving care teams easily consume the insights they need. In 2022, the Network Alliance supplied this missing piece for more healthcare professionals, making it simpler to communicate and bridge information gaps when coordinating care.

Medication History

Medication History helps avoid adverse drug events and readmissions by giving care teams and care managers a cleaner, more complete and intelligently enhanced picture of medications prescribed and dispensed for individuals or populations.

Medication histories delivered



Medication histories for populations delivered

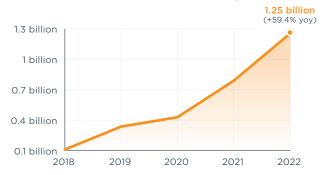


Record Locator & Exchange

Record Locator & Exchange helps clinicians find and retrieve clinical documents exchanged via Carequality—a national, consensus-based interoperability framework that enables information exchange among health data sharing networks.

In 2022, more than **250,000 clinicians** from 31,314 organizations across all 50 states and Washington, D.C. (**27%** more users than in 2021) used Record Locator & Exchange to locate and exchange more than 100 million clinical documents each month. This represented **30% of the average monthly exchange activity within Carequality** in 2022.⁴

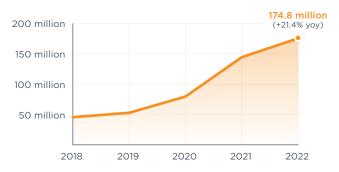
Links to clinical document sources exchanged



Clinical Direct Messaging

In 2022, 823,000 individuals and organizations—including more than 23,000 pharmacies—used Clinical Direct Messaging for secure, HIPAA-compliant exchange of protected health information within clinicians' electronic workflows. Clinical Direct Messaging also continued to support public health, transmitting 23,390,617 electronic case reports to public health agencies (+32% in 2022).

Clinical Direct Messaging transactions



IMPACT

Health plans pursue positive outcomes with Clinical Direct Messaging

Four health plans and two pharmacy benefit managers covering nearly **220 million patients** nationwide used Clinical Direct Messaging in 2022 to pursue goals including:

Improving medication adherence

Closing gaps in care

Reducing hospital admissions

Improving Centers for Medicare and Medicaid Services quality ratings

Enabling their care managers to focus on patients more than paperwork

One health plan with more than 26 million patients across all 50 states is using this technology to prompt providers to complete medication reviews, notify them about patient adherence issues such as missed pickups, and monitor statin use in patients with diabetes and cardiovascular disease

Solving for medication affordability & adherence up front

In a 2022 survey, 1 in 4 patients reported difficulty affording their prescriptions—which rose to 1 in 3 of those taking four or more prescription drugs. Anxiety around drug costs was even more common: 43% said they were at least somewhat worried about being able to afford prescriptions for themselves and their family.⁵

This has stark consequences for medication adherence. Patients with cost concerns may cut or skip doses—if they pick up their prescriptions at all. If the medication requires prior authorization, they and their care providers must hope that the process doesn't hit a snag.

The burdens of worry and rework become far lighter when prescribers and pharmacists can see prescription cost and coverage information throughout the care journey. By providing access to patient-specific information and the power to efficiently handle—or avoid—prior authorizations electronically, the Network Alliance is helping head off nonadherence before it starts.

Eligibility & Formulary

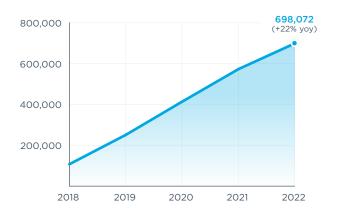
Eligibility & Formulary gives clinicians insight into patients' prescription benefit coverage at the group or plan level, setting the stage for success across many solutions. In 2022, Eligibility informed **4.34 billion care events.**

On-Demand Formulary delivers plan-level formulary information to prescribers via an instantaneous request and response transaction—replacing large formulary file downloads for greater efficiency and accuracy. In 2022, the number of healthcare professionals using On-Demand Formulary increased by nearly 13%.

Real-Time Prescription Benefit

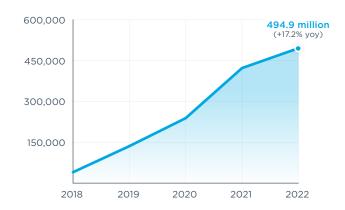
Real-Time Prescription Benefit sends cost and coverage information directly from the prescription benefit plan, including prior authorization flags, days' supply options and up to five covered therapeutic alternatives that may cost less or avoid prior authorization. In 2022, more than half of prescribers on the Surescripts network used it to access medication pricing.

Prescribers using Real-Time Prescription Benefit



99% of insured U.S. patients covered by data supplied directly by pharmacy benefit managers and health plans

Real-Time Prescription Benefit responses delivered to prescribers



98% of U.S. prescribers served by contracted EHRs

\$61.17 average savings per prescription when used to find a less costly alternative (+67% in 2022)

What specialties receive the most Real-Time Prescription Benefit responses?

Rank by volume	Specialty	Average savings per prescription
1	Internal medicine	\$27
2	Family practice	\$22
3	Psychiatry	\$70
4	Cardiology	\$31
5	Endocrinology	\$45

What medications generate the most Real-Time Prescription Benefit responses?

Rank by volume	Therapeutic class*	Average savings per prescription
1	Antidepressants	\$17
2	Blood-pressure lowering medica (antihypertensive agents)	ation \$16
3	Diabetic therapy	\$61
4	Lipid-modifying agents	\$15
5	Peptic ulcer therapy	\$17

^{*}Based on pharmacologic class

Electronic Prior Authorization

If a prescriber chooses a medication that requires prior authorization, Electronic Prior Authorization can get the prescription filled more quickly and efficiently by delivering prior authorization insights, dynamic question sets and responses.

- **99% of insured U.S. patients** covered by contracted pharmacy benefit managers and health plans
- 84% of U.S. prescribers served by contracted EHRs
- 44% more authorizations processed electronically in 2022
 - **27% increase in daily average number of prescribers** using Electronic Prior Authorization in Q4 2022, compared to Q4 2021
 - **3 minutes, 54 seconds to receive an answer** on average (13 seconds faster than in 2021)

IMPACT

Real-Time
Prescription Benefit
helps improve
pickup rates &
lower costs

Four studies published in 2022 examined the effects of using Real-Time Prescription Benefit to identify lower-cost medication alternatives. Impacts included:

Pickup rate:

3.2 percentage points higher⁶

Out-of-pocket costs:

11% lower overall and 40% lower for high-cost drug classes⁷

Prescription optimization:

days' supply adjusted in 44% of medication orders and quantity adjusted in 69% of orders⁸

Fill rate:

8.1 percentage points higher⁹

Cancellation rate:

5.5 percentage points lower¹⁰

Getting specialty prescriptions to patients faster

Specialty medications are innovative and often life-changing for patients with serious or chronic illnesses like cancer, multiple sclerosis and HIV. But with high costs and extensive documentation requirements in the mix, the journey from prescribing to starting treatment can be complex. In a 2022 survey, most specialty pharmacists and prescribers reported that it typically takes three to four weeks to get a patient started on a new specialty therapy.¹¹

The Surescripts Network Alliance is working to help patients start their medications sooner—and their care teams spend less time on paperwork.

Specialty Medications

Surescripts Specialty Medications solutions streamline the unique complexities of specialty prescribing and fulfillment to reduce treatment delays. In 2022, we saw:

20 million specialty prescriptions processed electronically (+9.6% yoy)

33% more prescribers enabled for Specialty Patient Enrollment, automating the specialty enrollment process by securely sending required information to pharmacies at the time of prescribing

725% more Specialty Medications Gateway transactions, letting specialty pharmacists retrieve the clinical information they need from the patient's EHR without relying on the prescriber

250,224 prescribers supplying patient information to specialty pharmacies via Specialty Medications Gateway

Reducing obstacles along the specialty journey

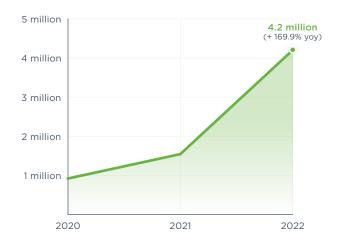
Access to patient-specific benefit information is also helping overcome cost and coverage barriers to starting specialty medications promptly. Analyzing specialty prescriptions only, in 2022 we saw:

\$428 average savings

per prescription when prescribers used Real-Time Prescription Benefit to choose a less costly option (+62% in 2022)

38% increase in Electronic Prior Authorization requests for specialty medications

Real-Time Prescription Benefit responses for specialty medications



Automation aids accurate weight-based dosing

Specialty pharmacy Accredo is a Specialty Medications Gateway power user. In January 2022, they enhanced their use of Specialty Medications Gateway to automatically retrieve patient weight values for use in weight-based dosing.

Two months after implementation,
Accredo reported receiving the
patient's most recent weight
automatically in 60% of cases,
reducing the need for manual outreach.
In 11% of those cases, this information
reflected a clinically significant change
of +/- 10%, prompting a pharmacist to
review to ensure safe, accurate dosing.

With Accredo generating 24,000 Specialty Medications Gateway a month as of December 2022, up from 12,000 in May 2022, innovations like this can add up to a significant impact on workflow efficiency and patient safety.

"

In caring for patients with complex diagnoses, specialty pharmacists must work with efficiency and quality. Surescripts solutions accelerate the process for specialty prescribing, fulfillment and onboarding by filling information gaps with clinical intelligence. Speed and patient safety are enhanced because clean, critical clinical data is automatically delivered from the EHR with the prescription.

—Katie Reeves Senior Product Manager, Accredo



References

- 1. Taylor L. Watterson et al., "CancelRx Implementation: Observed Changes to Medication Discontinuation Workflows Over Time," Exploratory Research in Clinical and Social Pharmacy, January 25, 2022, https://pubmed.ncbi.nlm.nih.gov/35478523/.
- 2. Athenahealth, "Physician Sentiment Survey 2022: Key Factors Shaping the Physician Experience," June 2022, https://www.athenahealth.com/sites/default/files/media_docs/PSS2022.pdf.
- 3. Tyson Blauer et al., "KLAS Performance Insights First Look: Surescripts Medication History for Health Systems 2022," October 2022, https://surescripts.com/docs/default-source/default-document-library/surescripts-medication-history-emerging-technology-first-look-2022-klas-research.pdf.
- 4. Calculation based on monthly transaction reporting from Carequality, January-November 2022.
- 5. Alex Montero et al., "Americans' Challenges with Health Care Costs," KFF.org, July 14, 2022, https://www.kff.org/health-costs/issue-brief/americans-challenges-with-health-care-costs/.
- 6. Surescripts, "2022 Medication Affordability & Adherence Impact Report," September 2022, https://surescripts.com/2022-affordability-report.
- 7. Sunita M. Desai et al., "Effects of Real-Time Prescription Benefit Recommendations on Patient Out-of-Pocket Costs," JAMA Internal Medicine 182 (11): September 12, 2022, https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2796059.
- 8. Shiven Bhardwaj et al., "Implementation and Cost Validation of a Real-Time Benefit Tool," *The American Journal of Managed Care* 28 (10): October 2022, https://www.ajmc.com/view/implementation-and-cost-validation-of-a-real-time-benefit-tool.
- 9. Shiven Bhardwaj et al., "Impact of Real-Time Benefit Tools on Patients' Access to Medications: A Retrospective Cohort Study," *The American Journal of Medicine* 135 (11): July 23, 2022, https://doi.org/10.1016/j.amjmed.2022.06.017.
- 10. Shiven Bhardwaj et al., "Impact of Real-Time Benefit Tools on Patients' Access to Medications: A Retrospective Cohort Study."
- 11. Surescripts, "Specialty Medication Experience: Obstacles & Opportunities," September 2022, https://surescripts.com/lp/specialty-medications-data-brief-2022.





Our purpose is to serve the nation through simpler, trusted health intelligence sharing, in order to increase patient safety, lower costs and ensure quality care. At Surescripts, we align healthcare organizations across the nation and give healthcare professionals the trusted insights they need to serve patients. We convene the Surescripts Network Alliance® to enhance prescribing, better inform care decisions and advance healthcare as a whole.