



CASE STUDY

UNC HEALTHSM

Innovating with a Fully Managed, End-to-End Test Automation Solution

SureTest partners with UNC Health on their innovation journey, shifting from manual system testing to a full-service test automation solution. The early results reflect significant cost and time savings and increased employee satisfaction.

THE PROBLEM

In 2019, UNC Health experienced unprecedented growth after it expanded facilities and acquired regional hospitals. Resources to support these efforts were at a premium, and the team needed to integrate Epic and third-party testing for new facilities, annual upgrades, and system updates.

As a result, UNC Health invested in test automation software and trained internal staff to build and maintain automated scripts to assist in the testing effort. The goal was to improve test quality and free up time for internal analysts and clinicians to focus on strategic projects related to expansion and Epic optimization.

After 18 months of effort and less than 20% of the scripts automated, UNC Health realized that the project scale demanded more resources. The complexity and sheer volume of scripts to build and maintain were overwhelming, and its teams required significant additional capacity to complete, support, and maintain an automation library.

CLIENT

UNC Health

LOCATION

Chapel Hill, NC

WEBSITE

www.unchealth.org

SIZE

- 3,887 beds
- 14 hospitals
- 20 hospital locations
- Hundreds of clinical practices

POPULATION SERVED

100 North Carolina counties

SURETEST CLIENT

Since 2022



ABOUT UNC HEALTH

UNC Health is an integrated healthcare system owned by the state of North Carolina and based in Chapel Hill. Known as “North Carolina’s Health Care System,” UNC Health provides care to patients in the state’s 100 counties through 14 hospitals, 20 hospital locations, and hundreds of clinical practices.

One of the nation’s leading academic healthcare systems, the \$5.4 billion enterprise employs over 33,000 employees from Hendersonville to Jacksonville. Recently, [US News](#) named five adult and seven children’s specialties at UNC Medical Center in its “Best Hospitals” and “Best Children’s Hospitals” reports.

THE SOLUTION

Faced with these resource demands, UNC Health selected SureTest to transform its manual testing approach. As a distinguished leader in healthcare innovation, SureTest provides UNC Health with a full-service solution built on certain exclusive key components.

The SureMethod® Framework supports a continual development and maintenance approach to continually test systems and applications that constantly change and require ongoing regression testing. The SureWorks® Library is an extensive collection of automated test scripts that allows SureTest to jumpstart the speed of customized development.

SureTest has created a UNC Health workflow-specific automation library, their SurePersona® Engine, that transitioned them from manual to fully managed test automation. SureTest’s Solution, along with their collaborative partnership with UNC Health, delivers a transformative approach that aligns with UNC Health’s vision for innovation.

In the initial implementation phase, SureTest’s proficient team swiftly orchestrated the workflow capture process, documenting multiple end-to-end outpatient test scripts (patient journeys) comprising 200 workflows. Following the methodology endorsed by UNC Health, SureTest strategically captured multiple scripts simultaneously, making efficient use of UNC Health staff’s time.

This approach proved highly successful, capturing and developing all scripts within the specified timelines.

SureTest also concurrently developed three additional end-to-end inpatient scripts during this initial phase.

UNC Health’s manual testing process included embedding third-party application workflows within the manual test scripts. SureTest collaborated with the UNC Health team to develop and implement automation workflows for Epic and third-party systems like Elekta Mosaic, Optum, GE HealthCare Muse, and more. These workflows have significantly reduced the necessity for manual intervention from UNC Health during routine script executions, resulting in a notable decrease in resource time required from the healthcare system.



THE RESULTS

SureTest designed the project's Phase One strategy to demonstrate value and gain buy-in from the broader EHR inpatient team before implementing Phase Two. The successful outcome of the first phase supports the ROI business case that UNC Health used to obtain funding for the partnership with SureTest.

In this initial phase, for the scope that has been automated, the 25+ IT team members who were previously tasked with manual testing will now reclaim those testing hours, along with the equivalent costs. This enables UNC Health to allow their team to focus on other strategic initiatives for the organization. The previous time commitment for manual testing included:



The success achieved in the first phase of script development demonstrated the value of SureTest's methodology to the inpatient team and the leadership of UNC Health. In late 2023, the partnership between UNC Health and SureTest began Phase Two to automate additional Epic inpatient test case scenarios and is poised for further expansion in 2024.

Once SureTest's automation solution is fully implemented, UNC Health will:

- ⚡ Save an estimated minimum of **17k hours annually** across the analyst teams that were previously supporting manual test case preparation, script refresh, and test execution
- ⚡ Incorporate a significant number of third-party application workflow automations
- ⚡ Drive significant satisfaction among their team who will be removed from manual testing minutia
- ⚡ Benefit from the ongoing continual development and maintenance embedded in the SureTest solution, which keeps their automation fresh and ready with each new upgrade and continual System Updates (SUs)
- ⚡ Benefit from continual testing and increase formal testing of 2-week intervals from 8 to 12 cycles yearly
- ⚡ Significantly increase test coverage, quality, frequency, and accuracy



With our partnership with SureTest and their full-service solution and our commitment to shift to leverage automation for essential technology testing, our healthcare IT organization checks off another box toward UNC Health's unparalleled dedication to innovation."

— Bonita Mittman, Executive Director of Information Technology, UNC Health





ONGOING SUPPORT WITH SureManage™

As an inherent part of the solution, SureTest conducts routine regression testing and maintains responsibility for the continual maintenance required by the ever-changing EHR and other third-party applications. This proactive approach helps identify potential issues with the applications early in the upgrade and SU cycle, contributing to overall system stability.

Moreover, the automated scripts execute promptly, complementing the application upgrade cycles. To date, SureTest has completed four formal testing cycles since the project's initiation, showcasing the ongoing success and reliability of the automation efforts.

SureTest's partnership with UNC Health demonstrates the compelling benefits of innovating with a fully managed, end-to-end test automation solution.

FEEDBACK FROM UNC HEALTH ANALYSTS

It's important to SureTest that our clients are receiving the ongoing benefits that are outlined at the start of our solution to kick-off ROI. To that end, we loop back with the analysts and end users most impacted by our solution and the time given back to them to do other work and initiatives. This is just a sampling of what the UNC Health Analyst Teams told us recently in our checkpoint satisfaction call.



It's giving us a lot of time to do more meaningful and strategic work that we historically had to spend multiple times per year doing upgrade testing. Now we don't have to."

— UNC Health Analyst



Even the utility scripts have been helpful to us; sometimes, I get requests for 20, 30, or even 50 patients to load, which could take me half a day or more. Because of the automation SureTest built and maintains for us, I no longer have to do that."

— UNC Health Analyst





So whenever we have new projects, I do not have to worry about doing regression testing for another department when that's already going on automatically."

– UNC Health Analyst



I noticed a relief in our integrated testing immediately."

– UNC Health Analyst



UNC Health's leadership and their technology teams' commitment to the success of our work together has been unwavering. We are humbly grateful for our partnership and look forward to continuing our trajectory to achieve even greater success together!"

– Laura O'Toole, CEO, SureTest



Are you ready to transform your manual testing approach?

Contact the SureTest team to learn more about our full-service test automation solution



Leveraging the SureTest partnership, we have been able to get back thousands of hours annually, freeing up time for our analysts to focus on more strategic build and optimization projects. The accuracy and volume of testing have significantly increased the quality of the changes going into production during upgrades and go-lives, resulting in greater productivity across our teams that support our EHR and third-party application testing."

– Lynn Nichols, PMO
Healthcare System
Manager, UNC Health





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Proven Results.**

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