
Analysis Estimates Value Associated with Use of the Statewide Health Information Network for New York New York eHealth Collaborative

EXECUTIVE SUMMARY

The New York Health Collaborative (NYeC) conducted a preliminary analysis of savings associated with use of New York State's health information exchange, the Statewide Health Information Network for New York (SHIN-NY).

Results of the analysis indicate that based on current size and utilization of the network, use of the comprehensive clinical information available within SHIN-NY is conservatively estimated to reduce New York State's unnecessary healthcare spending by between \$160-\$195 million annually, including savings to Medicaid and Medicare. Further, extrapolated to measure possible impact if participants leveraged the system to its full capacity, the analysis points to approximately \$1 billion potential savings to the state's healthcare system each year.

NYeC initiated this analysis of savings to estimate the SHIN-NY's financial value to New York State's healthcare system. The analysis was conducted based on methodology developed by the U.S. Department of Health and Human Services' (HHS) Office of the National Coordinator (ONC) for purposes of measuring cost savings associated with recent related federal proposals. Savings was delineated into three key categories of health system utilization: duplicate testing, avoidable hospitalizations and readmissions, and avoidable emergency department visits.

The approximated savings and value are based and consistent with results of existing peer reviewed, academic studies pointing to the value of using HIE generally. HIE has been associated with 50% reduction in rates of hospital readmission, 26% reduction in the rate of emergency department admissions, 35% reduction in the rate of repeat imaging procedures, and 10% lower 30-day readmission rate among Medicare fee-for-service beneficiaries. The clear impact on improved patient outcomes based on use of the comprehensive clinical information available via HIE, like the SHIN-NY, is critical to the health of New Yorkers.

This analysis is the first to consider the SHIN-NY as an enterprise, as used by its participants, to estimate savings to the state's healthcare system. Future iterations will include further refinement and expansion, as well as utilization and use case specific estimates.

INTRODUCTION/BACKGROUND

New York eHealth Collaborative (NYeC, pronounced “nice”) is a non-profit organization working in partnership with the New York State Department of Health to improve healthcare by collaboratively leading, connecting, and integrating health information exchange (HIE) across the state via the Statewide Health Information Network for New York (SHIN-NY).

The SHIN-NY is a network of networks that facilitates secure and confidential electronic sharing of patient data across the healthcare system. It is comprised of and connects regional health information organizations (RHIOs), or Qualified Entities (QEs), that allow participating healthcare professionals, with patient consent, to quickly access and share patient health information and medical records. The SHIN-NY enables collaboration and coordination of care to improve patient outcomes, reduce unnecessary and avoidable tests and procedures, and lower costs.

Use of Health information exchange (HIE) has long been associated with improved care coordination, quality of care, patient safety, and savings to the healthcare system through reductions in duplicative testing, lower rates of avoidable admissions and readmissions, and fewer visits to the emergency department. These are some of the most common contributors to healthcare utilization and expenditures.

In recognition of the value it provides New Yorkers, New York State has been a leader, investing in public HIE through the SHIN-NY enterprise for over a decade. As a result of the state’s commitment and investment, the SHIN-NY boasts participation from 100% of hospitals and over 100,000 healthcare professionals across New York State.

In an effort to estimate the savings to New York’s healthcare system generated from use of the SHIN-NY, NYeC initiated this analysis in 2019. The analysis employs methodology developed by the Office of the National Coordinator (ONC) for purposes of measuring cost savings associated with recent related federal proposals. Conservative estimates based on current levels of adoption and use of the SHIN-NY point to annual savings to the state’s healthcare system of between \$160-\$195 million annually, with opportunity to save over \$1 billion annually if optimally leveraged.

METHODOLOGY

In February 2019, the U.S. Department of Health and Human Services (HHS), via ONC, issued a federal proposed rule implementing many of the key provisions of the 21st Century Cures Act, including information blocking exceptions, a call for application programming interfaces (APIs) without special efforts, and enhancements to the ONC Health IT Certification Program.

The rule would impact health IT developers of certified products, health information networks, HIEs, and providers.

One significant implication of this ONC proposed rule, the conditions proposed as part of the changes to the 2015 Edition Certification Criteria, includes APIs. More specifically, the rule requires that APIs be made available without special effort, which means that they must comply with certain rules related to standardization, transparency, and marketplace competition.

Within the proposed rule, ONC set out to estimate the savings from requiring Open APIs for both patients and payers. In order to accomplish this estimate, they considered savings associated with access to a full, longitudinal health record across the following four categories: duplicate testing, avoidable hospitalizations and readmissions, emergency room visits, and adverse drug events. NYeC determined that this same methodology, cited throughout the proposed rule, could be applied in relation to savings achieved based on use of the SHIN-NY.

While healthcare expenditure data is notoriously complicated, the Kaiser Family Foundation's Kaiser State Health Facts are widely recognized as an industry standard. Using this data, NYeC identified the proportion of New York State versus national healthcare expenditure estimates. Next, to determine the overall percentage of providers who have access to the SHIN-NY, NYeC utilized sites versus individual providers, in an effort to be conservative and because provider level detail at regulated entities is not always available. Finally, to identify not just those with access, but the percentage of NYS providers that use the SHIN-NY, NYeC turned to data from a recent survey conducted by the National Opinion Research Center (NORC). Including only responses indicating participants were users of the SHIN-NY, and treating non-responses as non-users, NYeC calculated a percentage of the state's providers that use the SHIN-NY for purposes of this analysis.

Combining data on statewide healthcare expenditure with percentage of NYS providers using the SHIN-NY, NYeC relied on ONC's method and calculated estimates of associated savings. This was a preliminary, very conservative analysis that NYeC plans to continuously refine.

This initial analysis is based on the SHIN-NY's current levels of participation and usage. Additional analysis will be conducted to further refine and provide more detail.

SUMMARY OF FINDINGS

The analysis outlined above concluded that use of the SHIN-NY is conservatively estimated to reduce New York State's unnecessary healthcare spending by between \$160-195 million annually, inclusive of all payer types. This is based on the number of current SHIN-NY

participants that have reported awareness and use of the SHIN-NY, and the money that was saved through associated reductions in duplicate testing, avoidable hospitalizations and readmissions, and preventable emergency department visits.

The same analysis estimates that if all current SHIN-NY participants utilized the network to its full capacity, meaning their clinical workflows are optimized to leverage the services and functionality, savings would near \$1 billion annually.

CONCLUSION

The analysis conducted by NYeC is preliminary and conservative, but indicates significant savings associated with use of the SHIN-NY and aligns with findings of previous studies pointing to the value of HIE. These savings align with the healthcare industry's continued shift from fee-for service to value-based care arrangements and is integral to the success of state and federal initiatives in support of improved outcomes, reduced costs, and improved patient experience.

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