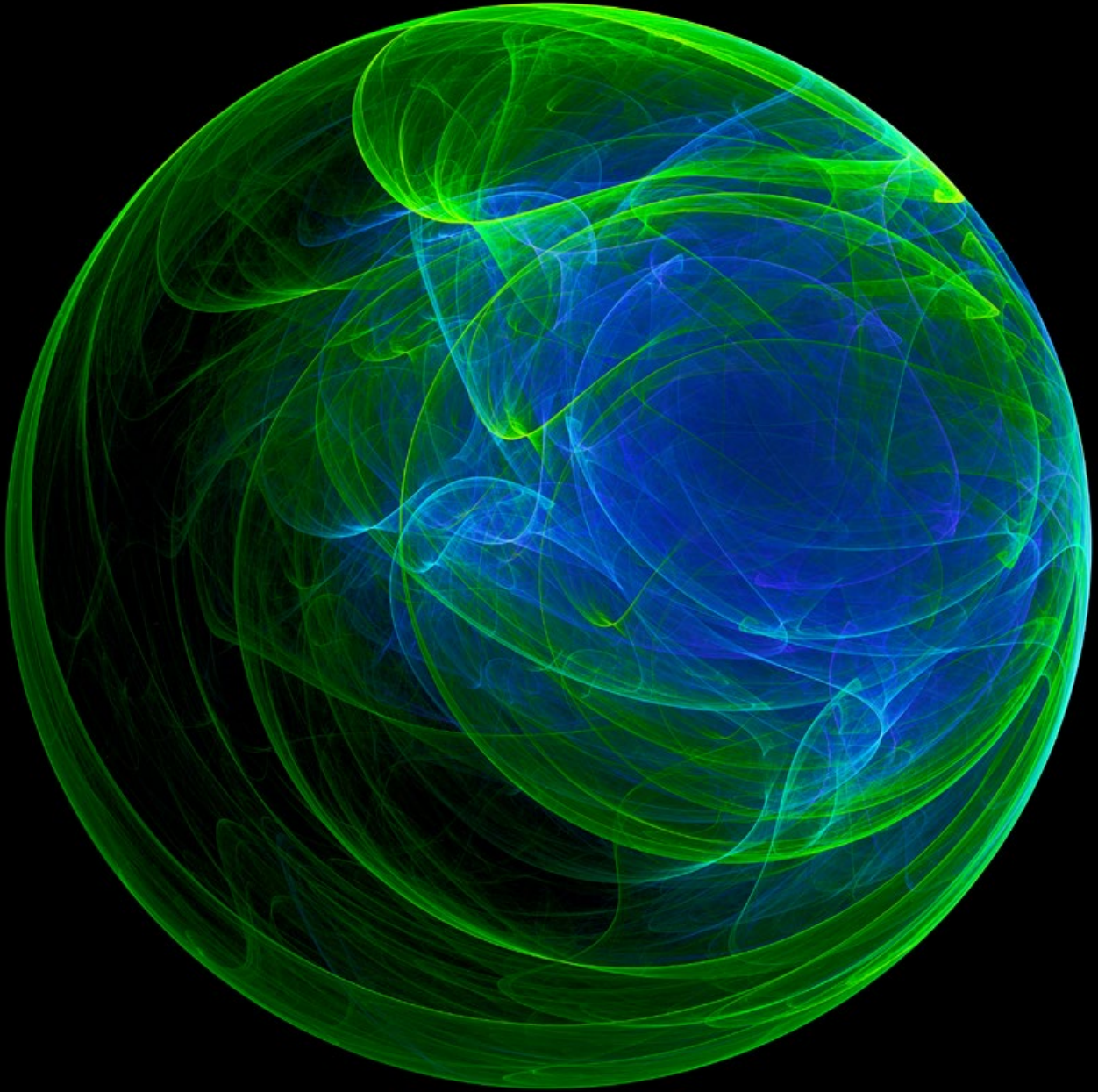


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**Radical interoperability
in health care**

Measuring the impacts on
care, cost, and growth

Measuring the impacts of seamless interoperability

Radically interoperable data, or just radical interoperability in health care, is a foundational capability required to enable the delivery of patient-facing programs and associated technologies. It's like plumbing. It's not sexy, it's not visible, but when implemented correctly, it can enable a whole new world of care delivery and patient empowerment. The future of health will likely be defined by radically interoperable data, open yet secure platforms, and consumer-driven care (from Deloitte's *Future of Health 2040*).

A frequently asked question in the industry is "what is the business case for investing in these technologies?" Given the interrelated nature of the technology platforms required to deliver value to stakeholders providing and receiving services, answering this question for interoperability alone is difficult. Benefits can be measured in areas such as time savings from an IT implementation perspective or speed-to-value calculations achieved by meeting market needs faster and more completely. However, potential benefits of interoperable capabilities across an organization should not be limited to these areas.

As a cornerstone to enable data-sharing and insights to the systems and users of health care technology, interoperability return on investment (ROI) should be aligned to the potential larger technology benefits it could help generate, including bidirectional exchange between partners, the ability to share and access data in real time or near-real time, and the integration of workflows

to achieve more efficient and collaborative processes. Providers and plans are likely to see the highest ROI through the following:

- **Reduction in administrative costs** as manual processes, such as quality reporting or obtaining prior authorizations, are replaced or optimized by technology
- **Increase efficiency of care delivery** as providers can leverage technology to more efficiently treat patients through an integrated care delivery model that includes virtual settings
- **Reduction in the total cost of care** through more effective and efficient population health management techniques that utilize technology to lower unit costs and utilization rates
- **Increase revenue and growth** through an improved patient experience, more effective patient steerage, and enhanced ability to meet quality and cost performance targets

In this article, we will take a look at some of the specific capabilities offered by radical interoperability, the benefits providers and plans can anticipate realizing from those capabilities, and the variables required to calculate ROI. An organization's maturity around the development and use of interoperable platforms can help determine which of these specific benefits will apply to them, and to what degree.



Reduction in administrative costs

Interoperability can enable both provider and plan organizations to reduce or redeploy FTEs away from time-consuming manual processes that often do not create value to tasks that can directly reduce health care costs and improve quality.

Regulatory compliance

Possess the necessary infrastructure to facilitate required regulatory reporting, as well as compliance with new patient data access and information blocking requirements

Potential benefits

- Avoidance of negative payment adjustments or other penalties for noncompliance
- Reduce FTEs dedicated to reporting
- Reduce clinician burden

Claim and encounter capture and adjudication

Improve the efficiency and accuracy of claim and encounter reporting

Potential benefits

- Reduce penalties for missing or incorrect data
- Increase accuracy and timeliness of payments to providers
- FTE reduction or redeployment

Aggregate and cleanse data

Facilitate the aggregation and subsequent cleansing of data from disparate sources for use in frontline clinical workflows and population health databases

Potential benefits

- FTE reduction or redeployment
- Acceleration of insight generation

Health information exchange (HIE) integration

Transmit, receive, incorporate, and reconcile clinical data directly between an EHR and HIE

Potential benefits

- Expedite transitions of care
- Continuity of care delivery
- Reduced errors and duplicate orders
- Patient safety

Electronic industry transaction management

Leverage available demographics and clinical data to determine benefits eligibility; submit and track the approval process for medications and medical procedures

Potential benefits

- FTE reduction or redeployment
- Increase throughput
- Reduction in appointment cancellations and “no-shows” and the risk of nonreimbursable services due to lack of prior authorizations
- Avoid prescription abandonment and speed time from prescription written to start of therapy
- Increase in patient satisfaction scores



Increase efficiency of care delivery

Radical interoperability allows clinicians access to real- or near-real-time data wherever care is being delivered. These capabilities can also enable clinicians to change how care is delivered, both in terms of where care is delivered and who delivers it, in order to increase the number of patients receiving care.

Appointment scheduling

Intelligent scheduling software that provides data beyond availability, such as benefit inquiry, in-network status, quality rankings, or geography

Potential benefits

- Maximize services and appointments
- Increase health plan revenue by charging providers and employers for the service
- Increase use of in-network providers

Virtual health

Offer patients the ability to access health care providers across virtual care settings, including the ability to triage patients and direct them to the appropriate care site

Potential benefits

- Increase market share
- Reduce utilization of higher-cost care sites
- Reduce costs resulting from virtual sites of care availability
- Increase in average care manager panel sizes results in more managed patients and members, which will increase revenue while minimizing incremental costs

Notifications and alerts

Facilitate care transitions and target clinical interventions via smart, automated notifications and alerts to clinicians

Potential benefits

- Reduce inpatient and ED utilization
- Improve effectiveness and lower costs of transitions of care by reducing manual handoffs and incomplete records
- Improve quality outcomes, such as reducing readmissions
- Improve the outcomes of key clinical programs, such as opioid use reductions and patient safety at home

Complete clinical record

Aggregate clinical data to form a virtual record from disparate sources to create a true longitudinal care record and reduce time spent in chart prep

Potential benefits

- Reduce time spent doing chart prep
- Expedite care transitions and prior authorizations



Reduction in the total cost of care

While health plans have always strived to reduce the amount of health care services utilized, providers in value-based care (VBC) reimbursement models are now incentivized to take similar steps. Below are several capabilities that providers and plans can leverage to drive improved patient outcomes, and therefore improved financial outcomes, in a VBC world, all enabled through radical interoperability.

Sites of care diversion

Provide clinicians real-time data during transitions of care to drive patients toward lower-cost-of-care sites (for example, inpatient to outpatient or outpatient to ambulatory surgery center)

Potential benefits

- Increase ability to meet cost measures
- Reduce ED utilization
- Increase use of in-network vs. out-of-network providers
- Increase in average care manager panel sizes results in more managed patients and members, which will increase revenue while minimizing incremental costs

Medication history and adherence tracking

By integrating prescription information from pharmacy and medical benefits claims with prescription fill data, providers can better understand patient compliance and avoid adverse events and reduce abandonment rates while increasing operational efficiency for medication reconciliation

Potential benefits

- Improve quality scores (such as MA STAR ratings)
- Reduce prescription abandonment
- Intervene to improve patient outcomes
- Adverse-event cost avoidance

Price transparency

Enable prescribers to see patient copay, plan cost, deductibles, and alternative cost-effective recommendations for medications and procedures. Pharmacists can see the same information at fulfillment to better understand the cost impacts for robust conversations with the patients and their providers

Potential benefits

- Cost-effective medication therapy
- Informed decision-making for cost-effective treatment options
- Patient engagement in their care decisions
- Care team collaboration
- Regulatory penalty avoidance

Member identification and risk stratification

Utilize the virtual longitudinal care record to more effectively and efficiently identify gaps in care and patients who are candidates for care management programs or interventions

Potential benefits

- Reduce inpatient and ED utilization
- Increase quality bonus payments for reducing gaps in care
- Increasing patient and member satisfaction through a more patient- and member-centric experience



Increase revenue and growth

The organizations leveraging technology to make interoperability happen faster will likely acquire and retain patients most effectively. Plans and providers are shifting their focus to the health care consumer, who can drive revenue and growth.

Patient steerage

Ability to present clinicians with data to more efficiently transfer patients to other providers in the health system that have availability

Potential benefits

- Increase health system revenues

Care gap identification

The ability for gaps in care to be quickly identified and addressed through visibility into the patient's entire clinical record

Potential benefits

- Improved quality scores (such as MA Star ratings) and subsequent bonus payments or adjustments
- Improve accuracy of HCC/RAF scores
- Improve ability to close care gaps

Patient analytics

The ability to monitor quality and utilization in near-real time to more accurately forecast VBC metrics, such as total cost of care or episodic cost

Potential benefits

- Improve VBC contract performance

Calculating the financial opportunity

The financial opportunity available to each organization is based on what capabilities they possess. However, there is a foundational core that must be in place to enable those capabilities. That core platform will continue to evolve as the market matures and the available solutions sitting on that core become more robust.

The benefits themselves are not going to change, only how much of that benefit can be realized. The amount that can be realized will depend on specific variables and circumstances unique to the organization, so each one will have to build their own business case. In addition, organizations should understand they cannot do all of

these at once (and maybe ever), so honing in on what capabilities can drive the greatest benefit is critical. In this section, we provide organizations some steps they can take to begin making a business case for the required investments and the key assumptions they should consider while making those calculations. The calculations

shown below are intended to be a high-level starting point for how an organization would calculate financial benefits. Each organization should work with the respective business unit(s) responsible for these capabilities to refine calculations and any related assumptions.



Financial opportunity		How it's calculated
<p>FTE reduction or redeployment Identify the specific roles that can be redeployed or eliminated. Look at FTEs with responsibilities such as:</p>	<ul style="list-style-type: none"> • Obtaining prior authorizations • Submitting quality and cost measure data • Fulfilling medical records requests 	<p><i>Reduction in numbers of FTEs x cost of FTE</i></p>
<p>Efficiency improvements Radical interoperability can offer organizations the ability to get more done with less. This can occur in the following areas:</p>	<p>Care management. Ability to provide more interventions for a greater number of patients enrolled in care management programs</p>	<p><i>(# total patients x % patients eligible x % increase in enrollment) x (PMPM difference managed vs. not managed x 12)</i></p>
	<p>Audit processes. A comprehensive digital paper trail can expedite the audit process and, in some instances, allow for continuous monitoring to avoid or reduce instances of over- or underpayments, inaccurate or incomplete claims, or gaps in care</p>	<p><i>Work with your audit function to calculate the financial impact of improving error rates and otherwise minimizing risks that have historically been unverifiable or untraceable.</i></p>
	<p>Clinician optimization. Evaluate the potential impact of having clinicians spend less time on things like communicating with other providers and payers, tracking down medical records, and populating charts and instead being with patients delivering care</p>	<p><i>Cost savings and/or revenue increases will be dependent on the clinician's licensing (MD, RN, APP, or MA) and their corresponding ability to service and bill for any additional visits that are generated by optimization.</i></p>
<p>Improve VBC outcomes For providers who participate in VBC contracts, improvements in quality and cost can directly affect financial performance and create a clear ROI. Be aware that reductions in the cost of care by providers who primarily participate in FFS arrangements need to consider the trade-off between the two reimbursement models. Providers and plans can utilize improvements in the following to calculate ROI:</p>	<p>Quality. Providers should review existing VBC contracts to calculate the impact of a percent increase in quality scores, whether that is an increase in existing payments or achievement of necessary thresholds to earn a quality payment. Health plans can calculate what an improvement in Medicare STAR rating would translate to in terms of increased reimbursement from CMS.</p>	<p><i>For plans: Change in [(MA benchmark x QBP percentage) – bid amount] x MA rebate %</i></p> <p><i>For providers: Work with managed care contracting to understand the financial opportunity in existing VBC contracts as it relates to improving quality scores.</i></p>
	<p>HCC/RAF. Plans can calculate how a percent increase in HCC and RAF scores translates into increased reimbursement from CMS. Providers need to look across all of their total-cost-of-care VBC contracts to evaluate to what degree an increase to their benchmarks from increased HCC or RAF scores would improve shared savings or capitation payments.</p>	<p><i>For providers: (# total members x (PMPM cost x 12) x % of revenue in VBC contracts) x % HCC improvement x (1 – average shared savings rate)</i></p> <p><i>For plans: # MA members x (bid amount x 12) x % HCC improvement</i></p>

Financial opportunity	How it's calculated	
Improve VBC outcomes (continued)	<p>Cost. Both plans and providers can evaluate how PMPM reductions can improve their bottom lines, whether through enhanced care management outcomes, improved medication adherence rates, shifting to lower sites of care, or simply reducing utilization. Again, a review of all VBC contracts is required to evaluate.</p>	<p><i>Care management improvements: (# total members x % members eligible x % increase in enrollment) x (PMPM difference managed vs. not managed x 12)</i></p> <p><i>Med adherence improvements: # total members x % of members taking medication x % of members nonadherent to medication x % of nonadherent members converted to adherence through interoperability x cost savings per members as a result of medication adherence</i></p>
Volume increases (providers only)	<p>Steerage. Organizations can calculate how gains in in-network utilization through more effective referral routing can affect revenue.</p>	<p><i># total patients x (PMPM cost x 12) x % increase in-network</i></p>
	<p>Virtual health. Calculate the potential opportunity for a revenue stream leveraging telehealth, virtual visits, and other virtual health tools</p>	<p><i>(Medical cost PMPM x # total patients x 12) x % of total PMPM revenue from outpatient services x % increase of annual visits served through virtual health x % of virtual health visits enabled by interoperability</i></p>
	<p>Scheduling optimization. Calculate the impact of a reduction in cancelled appointments and maximization of clinical time spent seeing patients</p>	<p><i>% increase in appointments per day x (total revenue / 365)</i></p>
<p>Membership and revenue growth (plans only) Providing patients with a differentiated experience can enable health plans to increase utilization of in-network providers and charge providers to use their innovative platforms.</p>	<p>In-network utilization. Calculate the impact of patients seeing a higher percentage of in versus out of network providers</p>	<p><i># total members x (PMPM cost x 12) x % increase in-network x in-network rate differential</i></p>
	<p>Charge for services. Calculate on a PMPM basis how much revenue can be generated through charging specific providers or employers to utilize services powered by radically interoperable technologies</p>	<p><i># total members x (PMPM charge x 12)</i></p>

Assumptions and variables

These will be different for every organization, and expectations should be aligned accordingly across the organization.

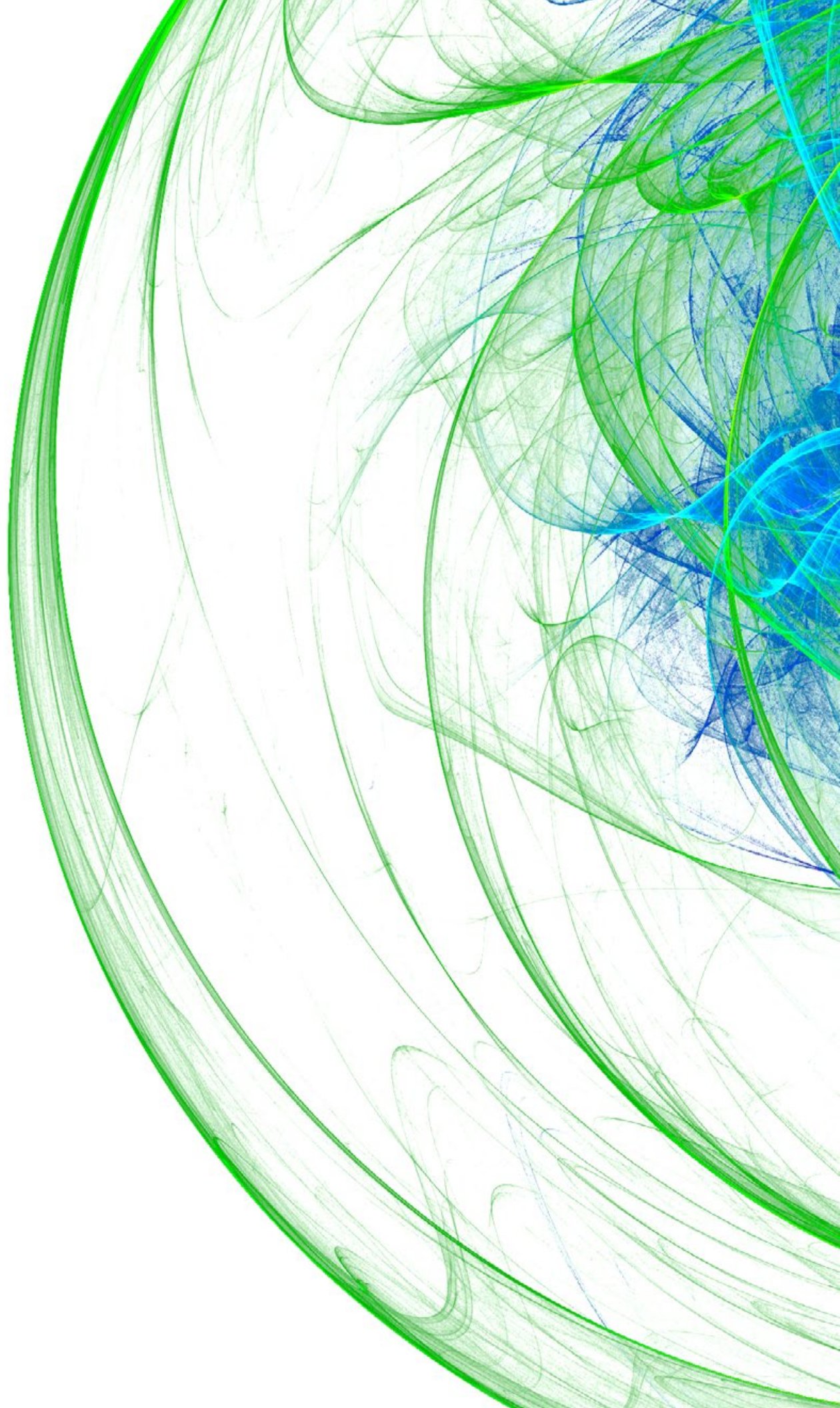
- **Amount of revenue in VBC arrangements.** Organizations with greater levels of reimbursement tied to quality and cost outcomes are positioned to realize a greater financial lift from these investments
- **Current time lost to manual processes.** The amount of benefit to be realized will be greater in areas of the business or clinical workflows which are currently disrupted by a lack of available data and/or rely on manual hand-offs
- **Revenues for navigated vs. non-navigated patients or members.** This accounts for the difference in revenue a health system or health plan can earn by steering patients to in-network providers
- **Blended costs for licensed vs. unlicensed personnel.** The potential to better align care responsibilities to the right individuals, enabling clinicians to work at the top of their license by shifting lower-complexity tasks to unlicensed individuals
- **Incremental rates for appointments scheduled.** The additional revenue and margin earned for each additional office visit that can be completed
- **Incremental rates per referral.** The additional revenue and margin earned for each additional referral made to in-network specialists

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