

Cost considerations for build vs. buy: healthcare analytics platform

Approximately 30% of the world's data volume is being generated by the healthcare industry — a single patient generates over 80 megabytes of data each year¹. This data holds incredible promise for improving the quality and cost of care, but making sense and full use of it places tremendous operational stress on Healthcare Organizations (HCOs). To take full advantage of their data assets, savvy HCOs are investing in data and analytics platforms that can unlock use cases for success in both FFS and VBC payment models.

Consideration points for building vs. buying a healthcare data and analytics platform

Below are some of the decision vectors that go into building or buying a healthcare data and analytics platform:



Time to value and opportunity cost

What is your expected timeline and how do you expect to derive value from your data platform?

- A build your own approach can take well over a year.
- The work needs to be complete to the point that you can extract value.
- Not implementing correctly can greatly inflate costs.



Capex/Opex

How much upfront and ongoing investment will be required to stand up and maintain the data platform?

- Ongoing maintenance of the platform and unexpected costs like data storage fees can add up quickly.



Staffing the data platform

Do you currently have the technical staff in-house to build and maintain your healthcare data platform?

- Staffing the platform is expensive and it will take several months to fully onboard the team.



Technology

How do you plan to maintain and iterate the platform to keep pace with the market?

- Regulatory requirements and changing data standards can place operational overhead on organizations.
- Organizations need a technological approach that enables innovation while ensuring compliance.



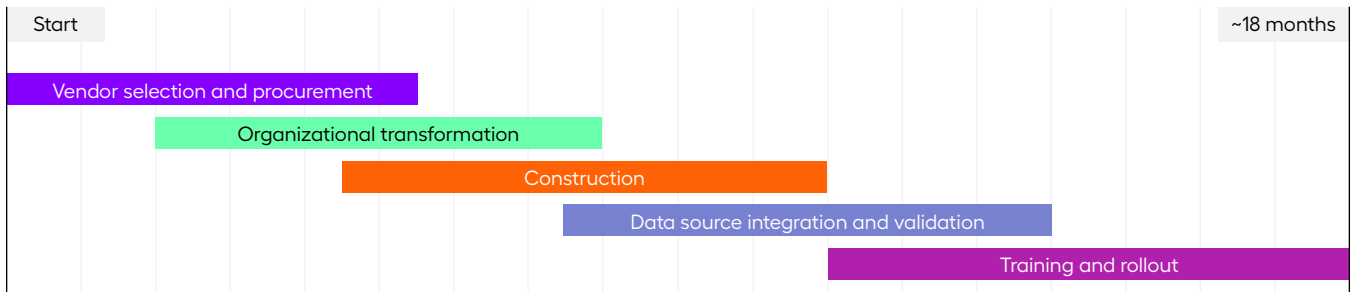
Time to Value and Opportunity Cost

HCOs have time-sensitive goals that can be put at risk if they choose to build their own healthcare data platform from scratch. In choosing the best path, timing is everything.

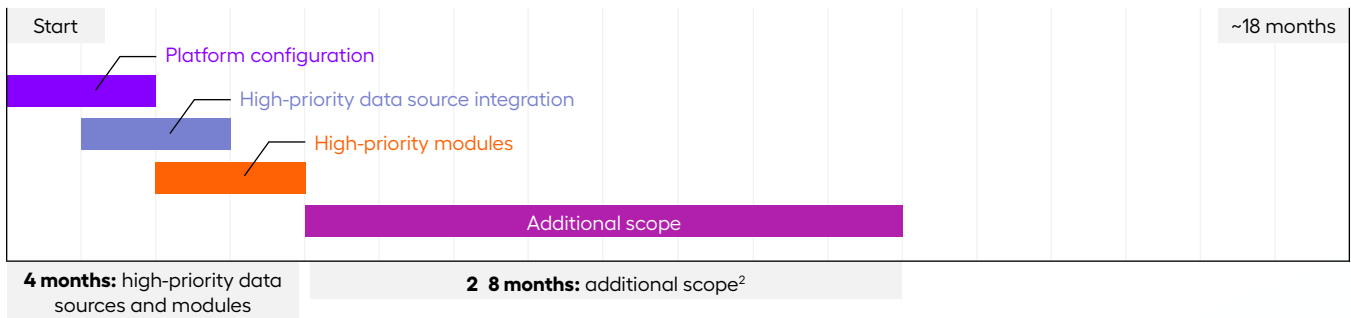
- Choosing and partnering with a vendor — the vetting and selection process can take several months, and multiple vendors means more overhead.
- Organizational transformation — building a fully-staffed team means recruiting software engineers at 45-60 days per hire, plus onboarding and training.
- Construction — integrating your existing infrastructure with new capabilities will take at least 9 months, not including unexpected maintenance and vendor solution upgrades.
- Rollout and enablement — once the platform is built, stakeholders and end users will need a minimum of 2-3 months’ training and certification.

The total timeline can be well over a year and a half of time and monetary investment. That doesn’t account for the overhead of multiple vendors, which can pull your IT team away from important strategic work.

Time to Build: Sample Timeline of Phased Approach



Time to Buy: Sample Timeline of Phased Approach



Platform Configuration



User setup, risk algorithms, quality measures, reports and dashboards, provider org structure, contract structure.

Data Source Integration



Access



Install



Review



Live

Training and Rollout



Elbow support, quick guides, workflows, user stratification

² Average client implementations can be between 6–12 months. Large connector data volumes may increase the timeline.



Capex/Opex: Managing Capital and Operational Costs

Healthcare organizations often pay excessive costs for application development, vendors' services, and legacy maintenance. Managing capital — how much can you allocate to R&D for initial procurement?

- Managing multiple contracts — working with multiple vendors can be time-consuming and riddled with unexpected costs.
- Staffing — a software engineer's base salary alone can start at \$150k, and the more complex your software, the higher your staffing costs.
- Storage — each user on your platform will need ample storage space, and to avoid data volume charges, you'll need to design and implement strict data governance practices.
- Maintenance — an ongoing expense that will trail your data platform every time you maintain or update it.



Staffing

HCOs are vying for technical resources in a highly competitive market. Staffing raises a unique set of concerns, including:

- Hiring — the average timeline for hiring a software engineer is 60-65 days (with a full recruiting team in place).
- Compensation — competing with a vast landscape of tech companies means providing high salaries, equity, and benefits.
- Volume — you'll need a full team of software developers, connectors, and operations experts with 1-2 people per area. That quickly amounts to millions of dollars per year for a functioning team. Contractors often have limited availability, and can command as much as \$175-\$210 per hour.



Technology

There are lots of technical decisions to make and vendors to evaluate when it comes to stitching together the healthcare data platform.

- Which cloud? Azure vs. AWS vs. on-prem
- Which strategy is right for my data? Data lake, data warehouse, NoSQL?
- What considerations do I need to make for my users? Do we need a semantic layer of data organization for end-users?
- Master data management. Interoperability and a massive data asset requires a common set of data standards and ongoing management. How do you stay on top of changing data standards and requirements?
- How will you manage ETL/ELT? Should we rely on third parties to transform the data? What is the organizational cost of doing this ourselves?
- Data governance. How do you ensure proper use of the data? How do you actively manage storage costs?
- Business Intelligence. Which power BI tools to use and how will they work with my data lake strategy?

Build vs. Buy Guide

“[Building our own healthcare and data analytics platform] allowed us to be pretty advanced early on in the market from a CIN perspective. But over a period of time, it became increasingly more expensive because we weren’t really scaling. Every time we wanted to add a new practice or add a new feature or template, it required new investments and new staff. Although we had some success, we saw that the costs were not scaling effectively with us. [We started looking at platforms] and luckily we met Arcadia and they brought a strong value proposition to us which has allowed us to grow our network and perform better and do more without spending more.”

Anthony Del Rio

Former Executive Director and President Rush Health³

³ <https://arcadia.io/resources/implement-an-effective-clinical-integration-program-cip>

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