

Getting Started with Consumer Data

January 2021



Consumer Data refers to individual lifestyle, attitudinal and behavioral data generated by an individual's engagement or participation in social activities and other life events (e.g., an individual's online search history, social media activity, purchase transaction history). Living, learning, working, and playing conditions that can affect the health outcomes of populations are known as Social Determinants of Health (SDOH), which can be extracted from consumer data.

As discussed in our previous article [*Enhancing Healthcare Analytics with Consumer Data \(November 2020\)*](#), integration of consumer generated data presents a sizable untapped



opportunity. Consumer data adds a link to unlocking a deeper understanding into populations of interest for a variety of purposes, such as:

- Forecasting health outcomes
- Disease risk and future use of services
- Development of strategies for outreach and engagement

Health care providers and organizations may also leverage consumer data to develop more personalized and effective health care experiences for their patients.

In this article, we share a getting-started approach and best practices cultivated from working with our clients on their journey to benefiting from analysis of consumer data to determine social determinants of health.

An Outline for Success

While consumer data may contain valuable insights, this data has challenges. The data comes in different formats and does not have established standards to ensure internal consistency. It also may require quite a bit of manipulation to ensure compatibility for modeling with medical claims or other data. In light of this, effectively leveraging consumer data in business processes, emphasis should be placed on development of the business case and subsequent evaluation and refinement. Providing an appropriate platform to perform development of the business cases that can then be effectively translated to production business processes is equally important.



The ultimate goal of efforts that tap into consumer data is yielding results or insights that will become part of new or revised business processes that can be best achieved by following these high-level steps, described further below:



The remainder of this article focuses on getting started with the critical first steps in creation of business cases and use of consumer data within that development effort. Several considerations follow once consumer data has been analyzed, prior to incorporating results into production processes. Those considerations will be the subject of a subsequent article.

Development of the Business Case

Much attention and detail are involved when seeking to leverage consumer data in development of a business case to support the effort. As with any development, some steps may require repetition as the business case is evaluated and refined. In our experience, the following steps are beneficial to preparing a successful plan.



Business case development is not always linear. An iterative process captures refinements and lessons learned.

Define Goals

Defining business case goals guides the entire work effort. Given this importance, this should be performed collaboratively across stakeholder groups that may benefit from the outcomes. While unearthing social determinants of health within consumer data can be very useful, not adhering to defined goals may lead to vague and ineffective business case outcomes. Be sure to define goals with clear and objective criteria.

GOAL CHARACTERISTICS

- Attainable
- Time Bound
- Specific
- Measurable
- Relevant

Assess Vendor

Many consumer data vendors exist. Each has its own advantages and disadvantages. These vendors offer consumer data in different packages and options.

The many characteristics and nuances of each vendor’s offerings can be daunting, so experience and spending focused time on this step go a long way toward success of the overall effort. When assessing a vendor’s data against business case goals, use six criteria to thoroughly evaluate each to choose the best consumer data.

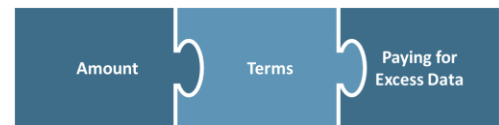
Some criteria may be difficult to compare between vendors. Most consumer data vendors provide some sense of each of these criteria from which the optimal decision can be made.

Some criteria will hold more weight for some organizations than others. Assess the importance of each criteria before evaluating data vendors.



\$ Cost

Naturally, one of the largest factors in choosing a vendor’s data is up-front cost paid directly for the data. However, there are other vendor payment factors.



🔭 Scope

Vendors often specialize in different areas of consumer data from financial to travel to nearly every industry imaginable. Evaluating for expertise in the healthcare industry is important to assure that vendor is getting quality, timely, and complete consumer data, and has a sufficiently broad scope relative to your business case. Even within healthcare data, many vendors specialize in specific population segments.



🔍 Data “Fit”

A thorough assessment of “fit” should be based on the business case goals. Evaluate the data being offered in the context of the overall analysis plan. Data that does not completely fit the requirements of the business case goals may need to be augmented later at additional cost, meaning the data offered by a specific vendor may not be the right choice.

Consider each of these attributes.



Data Acquisition

The actual receipt of consumer data once purchased cannot be overlooked and should be a criteria for vendor evaluation. The easier it is to acquire the data from the vendor once the purchase decision has been made, the quicker it is to get on with exploring it for analysis.



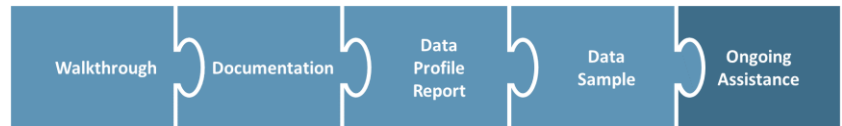
Licensing

One of the most important aspects of purchasing consumer data is the licensing of that data. Some licenses may be too restrictive or may not align with the overall business case goals. Vendor licensing has five main components to consider.



Support

A vendor's support and customer service are less tangible but still important. How a vendor interacts during evaluation often indicates their ongoing support.



Manage Data

Data management plays a key role in business case development with consumer data, from acquiring the data from the vendor, to proper ingestion, to ensuring a performant platform.

While most data management activity occurs at the point the consumer data is available to transfer, it is prudent to ensure the platform into which the consumer data will be ingested is prepared. This will avoid delays to the business case work effort.

Data management can be a component of analysis, by which data scientists load the data and perform many of the other data management activities. However, we have found that utilizing dedicated resources for data management activity frees up analyst time and energy to proficiently focus on the actual business case. Assigning data management activities such as the ones below to data management experts ultimately proves a better return on investment in the overall business case effort, even if the data management experts are outsourced.

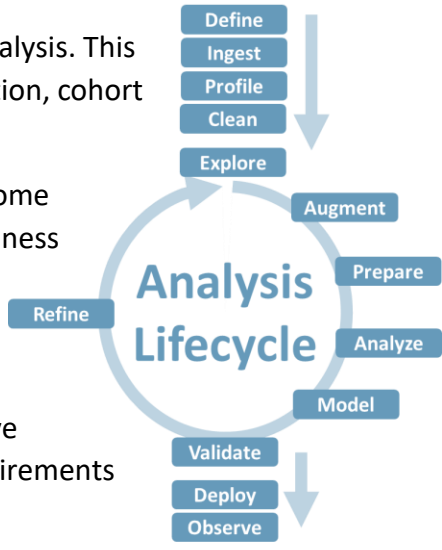


Analyze

Once the business case is established, vendor data chosen, and data management planned and executed, work begins to build out the analysis. This includes items like metrics, service categories, population segmentation, cohort definitions, and any predictive statistics and algorithms.

When working with a large data set, using a sample of the data for some quick analysis helps determine if the analysis is aligning with the business case. Caution taken when reviewing the results prevents bias that might otherwise be introduced, as the sample may not represent a statistically accurate depiction of the data.

The analysis portion of business case development is a highly iterative process, with repeated exploration and potential refinement of requirements and the actual analysis.



Evaluate Outcome

Evaluating the outcome against the business case goals answers the question of whether the results of the business case development prove the business case and is thus ready to deploy to production processes.

If the outcome does not meet the defined business case goals, it is possible the business case will not produce the benefits that were originally anticipated and may need to be adjusted or abandoned in favor of another work effort to begin on another business case.

An infeasible business case is not a desirable outcome. However, learning that a business case does not “work” is part of the natural iteration of analytics and prevents wasted time and effort.

Incorporate the Results and Outcomes

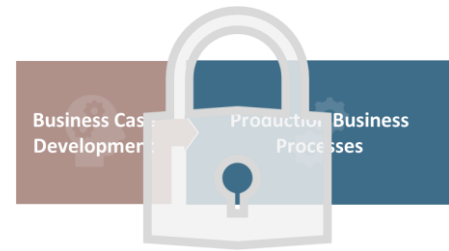
We deliberately focus here on getting started with consumer data to leverage social determinants of health. The complexities of effectively applying business case results is a topic for another discussion.

However, reaping the benefits of the hard work conducted in the business case development only comes from applying the learnings, results, and outcomes into production processes, where expected return on investment can be realized.

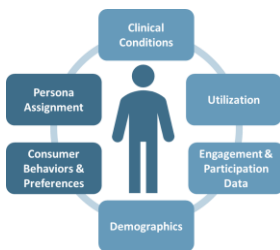
Privacy Protections

Privacy protections are achieved through a foundation of comprehensive security and compliance, which cannot be overlooked when purchasing consumer data from a vendor.

Privacy protections should always be applied end-to-end on all systems, processes, and transfers for all protected data. Privacy protections should encompass not only production business processes, but also all business case development where protected data is used. These protections are the responsibility of all organizations, as is the ultimate use of the data.



Before beginning the journey to building business cases with consumer data, understand how vendors source their consumer data. Confirm they follow all applicable privacy protection best practices. This is a critical first step to using consumer data responsibly.



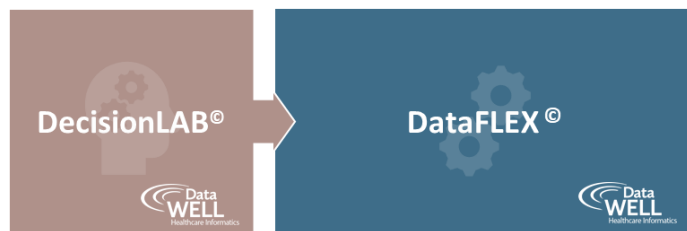
Dr. Eldesia Granger of the MITRE Corporation writes “Consumer-generated data has the potential to exacerbate health inequities if organizations do not consider how it may inadvertently result in limited access to or denial of services” (Source: [healthcareitnews.com/healthcare-should-approach-consumer-generated-data-cautiously-expert-says](https://www.healthcareitnews.com/news/healthcare-should-approach-consumer-generated-data-cautiously-expert-says), retrieved February 24, 2020).

Wrap-Up



Getting started with consumer data is truly just the first step. Successfully navigating an initial roadmap as we have described here will eliminate unneeded rework. Choosing a solution that unlocks more insights more quickly is key to maximizing your return on investment.

Outsourcing the complex and tricky aspects that can trip up business case development is often a smart decision. DataWELL Informatics offers a secure platform that is a perfect fit for business case development, as well as a production-level option built for executing and integration with production processes.



[Contact us](#) to receive an extended version of this white paper, which includes a detailed breakdown of each section.

Visit [our web site](#) to explore how our expertise and secure platform can assist you in getting started unlocking those social determinants of health that you just have to reach out to embrace.