



Seagen Data Supplier RFI

Symphony Health Solutions

August 2022

Seagen Data Supplier Questionnaire

Response ID:42 Data

3. Data Supplier Information

1. Company Legal Name

Symphony Health Solutions, an ICON plc company

2. Year Founded

Originally late 80s

3. Ownership Type

Public

4. Corporate Headquarters Address

South County Business Park
Leopardstown
Dublin 18, Ireland

5. Major Operational Center Address (if unique from Corporate Headquarters)

731 Arbor Way, Blue Bell PA 19422

6. Company Origin and Overall Mission

Symphony Health aligns with the parent company, ICON, who's mission has been to help our clients to accelerate the development of drugs and devices that save lives and improve quality of life. We do this by delivering best in class information, solutions, and performance, with an unyielding focus on quality at all times.

We use data to answer questions about the patient health journey.

At Symphony Health, we use data to create solutions for virtually any business that needs to answer questions about any step of the patient health journey. We can also show you the impact or influence of any constituent on that journey, including payers, providers, labs, hospitals, medical offices, advertising, and pricing.

Then, we make that data work for you.

This is where our technology and people come together. We take our raw data and create smart tools and hubs that make analyzing big data easily manageable. We specialize in data integration, analytic tools, and cloud-based commercial marts and hubs.

We'll guide you through the complete patient journey, from start to finish.

We develop and execute custom research projects to uncover deep insight into patient and physician decision drivers, as well as health economics and outcomes research crucial to ensuring patient access and commercial success. From biotech's to big pharma, we have the flexibility, scalability, and expertise you need for real world research and product development

7. Organizational Structure (Appx # of FTEs, appx # FTEs working on US pharmaceutical data, data processing & analytics, divisions, etc.)

Symphony Health is a wholly owned subsidiary of ICONplc, which is a publicly traded company. Symphony totaled \$260M in revenue in 2020. For more information, please visit www.symphonyhealth.com. ICON's financial information can be found at <https://investor.prahs.com/sec-filings/sec-filing/10-k/0001613859-21-000011>. Symphony's contribution can be found under "Data Solutions" within the filing. Symphony has around 310 full time employees.

Graphic available in attachment with submission.

8.

Key Contact Information for the contracting process (name, title, direct office telephone number, mobile telephone number, email)

Gita Mishkin
National Account Director
+1-480-450-5533
Gita.Mishkin@iconplc.com
Gita.Mishkin@symphonyhealth.com

9. What is your competitive advantage on patient claims data for Oncology and why should Seagen select your firm over others in your competitive market mix?

With over 20 years of experience in healthcare data claims, specifically patient level analytics, Symphony Health is poised to be a premier leader in the provision of healthcare data. Symphony Health is a leading provider of high-value data, analytics, and technology solutions for biopharmaceutical manufacturers, healthcare providers, and payers. The company helps clients understand disease incidence, prevalence, progression, treatment, and influences along the patient and prescriber journeys by connecting and integrating a broad set of primary and secondary data, and providing health research, analytics, and consulting expertise. Symphony Health derived data improves health management decisions, and helps clients drive revenue growth while providing critical insights on how to effectively adapt to the changing healthcare ecosystem. Symphony is a leader in data modeling, machine learning, patient finding and high value targeting. As previously mentioned, Symphony Health is an ICON plc company. Symphony Health Solutions Corporation has one subsidiary: Source Healthcare Analytics, LLC. Symphony also leverages partnerships to fill in holes of its open-sourced data. These partnerships have become critical to clients in understanding the holistic view of the patient. Symphony has prioritized understanding all data available in the marketplace and has extended partnership opportunities to provide clients with even deeper data insights than have previously been available in the marketplace as standalone data sets.

This is the key advantage to our healthcare data, specifically within the Oncology space: our understanding of the need and methodology to augment the patient's journey by using numerous other elements than just the typical prescription, medical and hospital claims data. For this reason, we have two methods for data integration, to allow us to view patients from a holistic standpoint, including social determinants of health, electronic medical data, and lab data.

1. Symphony claims data is tokenized using Synoma®, which is Symphony's proprietary tokenization engine. Symphony converts the tokens to a Symphony Patient ID (SynomaID®) by validating the tokens against Symphony's 317M patient master. All data is provided with this unique patient identifier for consistent, longitudinal tracking of the same patient across and within data sources. Symphony's patient master becomes the anchor point enabling high fidelity data integration.

2. Symphony established a strategic partnership with Datavant in early 2020. We have recently stepped up this partnership and will be collaborating with Datavant to create and maintain a Multi-Integration Token (MIT) crosswalk (SynomaID® / Datavant token). Unique to Symphony, all data deliverables can be provided with both a Symphony Patient ID (SynomaID®) and Datavant Tokens 1 and 2. Symphony and Datavant are taking this partnership level to the next level by creating and enhanced crosswalk that will connect more than 90% of the Datavant tokens to SynomaID®s.

Another key advantage is our ability to leverage our industry knowledge to utilize our medical administered claims. For example, Symphony has created a methodology to determine by indication analytics for prescription medications. By doing so, Symphony has developed a process to deliver indication level un-projected subnational prescription data feeds to client that allow for indication Level Subnational Prescription Data feeds. The purpose of this deliverable is to support practitioner and territory-specific analysis to drive effective planning and optimization of field sales activities.

In addition, we have access to the division of ICON where the medical professionals reside and act as subject matter experts by specific therapeutic area.

4. Seagen Account Team/Change Management

10.

Profile the proposed Seagen Account Team, including

Executive Sponsor (name & location) and

Account Team, including day-to-day account lead (please provide a proposed Org Chart and tenure of each team member)

The Symphony Health – Seagen Account Team, will include, but not be limited to:

Vice President, West Sales – The Vice President of the West Sales team will act as the Executive Sponsor for the Seagen and Symphony Health Relationship. This person is currently located in Phoenix, Arizona. This person has been in the industry for over 20 years.

National Account Director – The National Account Director manages the overall relationship with Seagen, including but not limited to, contracting, pricing, distribution of requests and inquiries, and maintaining a direct line of communication with the Executive Sponsor. This person has been in the industry for over 15 years and with Symphony Health for over 12 years.

Manager, PMAC PHORCE Consulting – The PMAC PHORCE Consulting Manager acts as the PMAC PHORCE Consulting manager, as well as the subject matter expert for the PMAC consulting piece of the business. This ensures expert direction associated with all patient level data.

Principal, PMAC PHORCE Consulting – This Principal acts as the subject matter expert for the patient claims data. They will help guide Seagen and the Symphony Health team to ensure appropriate development and delivery of the patient claims data. This person has been in the industry with Symphony Health for over 12 years.

Senior Engagement Manager – This Engagement Manager works as the liaison between Seagen project managers and developers as well as the Symphony Health developers and analysts. They act as the day-to-day contact for all things related to delivery. This person has been in the industry for over 10 years, and with Symphony for 4 of those.

Analysts/Developers – Depending on the magnitude of the data purchase, Symphony Health will utilize our onshore and offshore analytics team members to create and manage the delivery of the project.

11. If applicable, upload file(s) to support answer to previous question here.

12.

Using the background provided, describe the staffing structure you suggest would work best for Seagen. Please be specific regarding the structure you recommend.

How would you manage the day-to-day interactions with the Seagen office?

How do you manage the communication ensuring expectations are met?

What is the process for managing escalations on projects?

Symphony recommends a two-pronged approach to day-to-day interactions. The first is related to training. The entire Symphony Health account team will provide quarterly trainings on our data, including new innovations that can be derived utilizing the patient claims data. The second is setting up a cadence specific to Seagen's needs to ensure proper communication of inquiries or data related issues. As a long-standing client of Symphony's, Seagen has always been a top priority. We have not experienced too many issues with delivery or development, but in any instances of this, we have worked closely with the Seagen team to rectify the issues.

13.

Please provide an outline of the team members you would assign to Seagen and their roles:

Sales Leads/BD Leads

Service Leads

Consultants

Subject Matter Experts

Etc.

Joe Bivins, Vice President of Sales

Mr. Bivins has been in the Pharma services industry for over 27 years. Originally, Mr. Bivins joined Symphony Health in May of 1995 and spent 13 years in various roles from Operations, Product Management and finally Business Development. In 2007 Mr. Bivins joined McKesson Corp and spent 12 years leading the Patient Support Services group as the Vice President of Business Development. In this role Mr. Bivins team supported Pharma in various Patients services including Copay support as well as Hub services. In 2019, Mr. Bivins returned back to Symphony Health to lead a Business Development team supporting various data and consulting services for pharma customers.

Mr. Bivins has a BA degree in pre law from the University of Arizona.

In his spare time, Mr. Bivins is usually spending time with his wife of 25 years and his two daughters, or he can be found supporting his love of Chicago professional sports teams.

Gita Mishkin, National Account Director

Ms. Mishkin was promoted to the position of National Account Director in 2020. Originally, she joined Symphony Health in June of 2009, as a Practice Consultant on the Government and Non-Pharma services. She worked directly with the creation of the first patient transaction level datasets at Symphony Health, and she has subsequently become a subject matter expert in the patient claims data, in relation to both a delivery and analytics methodology.

For two years, Ms. Mishkin left Symphony to work as a Research Lead at Comprehensive Health Insights, a Humana company. During this time, she worked with claims data as a health economics and outcomes research expert, which complimented her education background and earlier career. This allowed her to flex her public health training, as she holds a Master of Public Health – Biostatistics degree from the University of Arizona. Prior to leaving the public health space, Ms. Mishkin was the Research and Evaluation Manager for the Arizona Department of Health Services.

In her spare time, Ms. Mishkin is usually spending time with her three boys (ages 7, 4 and 1) and husband, or she can be found walking around the neighborhood or at hot yoga.

Swaroop Satya, Principal PMAC (Patient insights, Market Access & Consulting)

Mr. Satya has 18 years of experience in Pharmaceutical Data Analytics and Hospital Information System. He joined Symphony Health in Jan 2009 and he was part of the Integrated Dataverse (IDV) design and development team that created the Extract, Transform and Load (ETL) Process to ingest various data feeds. Mr. Satya managed onsite and offshore teams responsible for creating automated QC reports for multiple processes, built custom Patient Transactional Dataset (PTD), and executed client specific patient data analytics. Over the last 3 years, as a data and analytics expert he has transitioned over to the commercial team assisting his clients answer Brand and Payer business questions.

Mr. Satya holds Bachelor degree in Computer Science and Engineering from Vishweshwariah Technological Institute and Master in Business Administration from Indian Institute of Planning and Management. He is also a certified Project Manager from Project Management Institute (PMI).

Shawn O'Neill, Engagement Consultant - PMAC (Patient insights, Market Access & Consulting)

Mr. O'Neill has 9 years of experience in Pharmaceutical Data Analytics and Copay/Coupon Assistance Programs. He joined Symphony Health in Nov. 2018 and has been involved in the day-to-day fulfillment of client deliverables, ad-hoc analytics, and client support of many west coast partners of Symphony Health.

Mr. O'Neill holds a bachelor's degree in communication, Emphasis in Advertising from San Diego State University.

14. Seagen personnel would like to interview candidates proposed for the day-to-day lead role for their business either via Video or by direct visit. Is this possible?

Yes, Symphony Health encourages this.

15.

Implementation Business Rules and Timeline – please provide a detailed implementation plan and timeline from contract award to launch readiness that will include all brands (Adcetris, Padcev, Tinvak, Tuysa). For each of the activities in the implementation plan, please identify the responsible party within your company and required resources from Seagen in terms of function/role and level of involvement.

***Note:** you may upload supporting files in following question.

16. If applicable, upload file(s) to support answer to previous question here.

[Seagen_Question_16_Response.pdf](#)

17. What type of offerings are included in the data cost to support one-time change management of switching patient claims data? Example offerings can include consulting, report testing, business rules, support, training, communication and coordination, etc.

To support one-time changes in patient claims data, Symphony health would recommend timing and sizing the offerings requested and determine how much of already existing or remaining fees could be applied to a switch in market or methodology. We do have experience in doing this but due to the magnitude of potential changes, we require the ability to reassess the efforts.

5. Oncology Patient Data

18.

Please fill out and upload the workbook, titled "Oncology Patient Data Tables" that was included with the email sent to you with the link to this questionnaire. Specific ICD codes are provided in the spreadsheet/Excel file titled "Seagen ICD CPT Codes"

[2022-08-15_SEAGEN_ONC_RFI_cHL_Counts_CF.pdf](#)

[2022-08-15_SEAGEN_ONC_RFI_Metastatic_Counts_CF.pdf](#)

19.

Please describe your Longitudinal Patient/Claims and lab data offerings.

Does it include diagnosis codes (ICD-10)?

Provide physician-level data with unique ID?

Is data aggregated at the HCP level?

The foundation of the source of your data and analytical assets is Symphony's Integrated Dataverse (IDV®). The IDV is the industry's most complete big data solution for all commercial applications and analytics, with the most granular market insights powered by the richest data sample available. PatientSource™ is part of the IDV which provides the most comprehensive longitudinal patient database available in the market. PatientSource™ contains annually over four billion pharmacy, medical and hospital claims linked to anonymous patient identifiers, practitioners, and payers. This complete market view provides the ability to understand treatment utilization across healthcare delivery settings.

Bringing together such a vast amount of data across prescribers, payers, and patients, we enable our customers to derive insights that consider the influences of each stakeholder in every interaction. Data can be focused on any perspective, while retaining details reflecting the others. For example, our customers can uncover insights around brand performance by individual prescriber, taking into consideration how patients and payers ultimately impact prescriber decisions and outcomes. This is just one example of the nearly unlimited possibilities and level of detail that can be achieved through our leading data strategy.

The Symphony Synoma™ Platform enables the integration, storage, and curation of a variety of Healthcare data sources. It is a tried and tested collection of technologies, processes and tools that enable the efficient processing of data sources, including patient-oriented sources, performing integration, storage, curation, and dissemination, in a HIPAA compliant manner. The

Synoma platform provides a robust environment that has evolved from Symphony's own operational needs as a "Big Data" provider. It incorporates state-of-the-art technologies that provide greater capabilities and efficiencies which further enhance the utility and value of the platform.

Symphony's SynomaID™ provides an automated and secure patient de-identification system that has been certified and validated as supporting the privacy needs for any data supplier. SynomaID™ ensures compliance with HIPAA privacy rules by de-identifying the patient and removing Protected Health Information (PHI). SynomaID™ addresses the challenges of integrating patient-specific data from multiple providers by creating a unique patient identifier across all sources.

The PatientSource™ repository allows for integration of all incoming transactions (Medical/Hospital claims and dispensed Rx transactions) based upon the SynomaID™ which is a common patient identifier and common encryption of other variable such as prescription number. The hallmark of the integration of longitudinal patient claims is Symphony's requirement that transactions contain the following information to be incorporated into its patient repository:

- Patient First Name
- Patient Last Name
- Patient Date of Birth (DOB) or Year of Birth
- Patient Gender

These data elements, along with some others, are combined and encrypted using a common encryption methodology across all data providers. The encrypted information is then used by Symphony to link patients longitudinally, both over time and across care settings.

Our approach to patient linking offers the ability to track patients year-over-year regardless of health insurance or other demographic changes. Consider in 1 year, 30% of patients change payers at the "national" level, 11% of patients potentially change names (e.g., marriage/divorce), and 15% of patients change pharmacies. Symphony's patient-linking methodology and stringent requirements in the PatientSource™ longitudinal patient database mitigates the loss and miss-assignment of patients

PatientSource™ captures claims at the "point of service" provides for the most unbiased coverage available—plan turnover and formulary or other plan-specific biases do not affect the dataset. Symphony' core strategy for securing these data is to work exclusively with long term contracts with its data providers. This ensures an up-to-date and reliable supply of longitudinal data. By receiving daily feeds from our data suppliers, we are able to provide timely answers to key business issues and questions.

Medical Claims are captured as submitted claims—going from the provider to the payer. Pharmacy claims sourced from the "switches", however, are captured via the entire claim lifecycle. Symphony is able to isolate and provide visibility into the electronic transactions ("chatter") between the pharmacy and the payer as a claim moves through the adjudication process. This unique data capture provides visibility into lost opportunity at the pharmacy, whether it is a payer block or a patient abandonment. Full financial transaction data is also captured at the local plan level to support local level insights into patient, payer and prescriber behavior and enables visibility into multiple payers including some electronic voucher type programs.

How is the data linked?

As described above, PatientSource™ is an encrypted longitudinal patient level database integrating submitted prescription, physician practice (CMS 1500) and hospital (CMS1450) claims and transactions, which can be associated to anonymized individual patients. Prescription transactions are sourced through Intelligent Network Service ("switch") organizations (63% of sample, dispensed Rx), supplemented through data sourced directly from larger pharmacy organizations (37% of sample, dispensed Rx). Medical and Hospital claims are sourced from Service Bureaus which facilitate the reimbursement process.

Pharmacy transactions represent commercial third party, Medicare, and Medicaid payers with over 3,000 health plans; cash and co pay assistance programs are also captured, as are Employer Groups and risk groups (identified through encrypted Group IDs). Medical and hospital claims represent the insured population, with claims associated to commercial, Medicare and Medicaid plan types. Symphony's patient dataset contains history dating back to January 2003. This comprehensive and integrated information allows Symphony to provide longitudinal measures of patient behavior patterns, including disease prevalence and therapy patterns.

To provide our clients with a precise and representative view of longitudinal patient history, Symphony strategically gathers and compiles key information from medical practice, hospital, and pharmacy providers. The repository allows for integration of all incoming transactions (claims and dispensed Rx transactions) based upon a common patient identifier and common encryption of other variable such as prescription number (via the SynomaID™ as described above).

Symphony uses a series of business rules applied to the inbound data prior to loading it to PatientSource™ in which to identify and remove any duplicate data supplied by the various data sources. Prescription and medical / hospital transactions are handled differently. Each process is described below.

Prescription Transactions

In the IDV platform, prescription transactions across all Symphony data sources are loaded into a staging area and clustered using a series of business rules designed to utilize the prescription number as the unifying mechanism. The clustered transactions are then grouped and sequenced to allow for a complete picture of a prescription event. Dimension information is then selected from the "best source" as identified within the Symphony system, resulting in a final view of the prescription event. The incoming transactions that make up a cluster are date stamped with a continuously updated view of the final event.

When patient transactions are selected for inclusion into the datasets provided to our customers, a further de-duplication process is performed, which utilizes the patient as the unifying mechanism. This process addresses duplicate transactions which may occur across prescription numbers. This scenario is particularly prevalent in the specialty markets. IDV patient transaction databases (PatientSource™) utilize a 14 day look forward period to link and resolve patient transactions as a standard (customized look forward periods may be utilized, but research suggests that a 14-day window is typically sufficient).

Medical / Hospital Transactions

The IDV data management system processes and "adjudicates" medical and hospital transactions as they are loaded into the patient repository. The hospital claims are adjudicated within each data supplier using the type of bill code to apply voids, replacements, and adjustments. Then the transactions are de-duped across all of Symphony's data suppliers, in order to isolate each individual service that was rendered. We use a similar process to de-duplicate the medical claims.

Some duplicate transactions are left in the repository due to key differences in the transactions. The retention of these duplicates actually serves an analytical purpose, particularly when there are different payers associated with these claims. It allows for visibility when a patient has a primary and secondary payer (such as traditional Medicare and supplemental insurance). De-duplication of these transactions typically take place at the point of analysis.

To support a robust data governance program, we overlay the concept of a compliance pathway for data processing above and beyond the standardization, normalization, harmonization, and integration system processes. The compliance pathway includes defined steps at which explicit privacy and compliance activities occur for data received, maintained, and delivered by Symphony.

Symphony takes great pride in our quality control, which helps ensure the accuracy of the products and services that we commercialize. We operate in the broader life sciences space, integrating and generating fit-for-purpose datasets for a broad range of analytical purposes. Other than in explicitly identified instances, all data collected, managed, and distributed by Symphony is considered de-identified, as defined by Title 45 of the Code of Federal Regulations (CFR) Part 164. To accomplish this, data provided to Symphony by external parties is processed through our SynomaID de-identification engine at the source and is then transferred to Symphony by secured transmission protocols.

We adopt an object-oriented modeling approach during the modeling process. This ensures all common and/or re-usable business rules and analytic models/rules are abstracted and built as re-usable components. This re-usable 'business rule' code—coupled with strong documentation (both within the code and project documentation)—ensures the development team leverages the re-usable business rules code in all subsequent relevant business solutions. This ensures accuracy and consistency of findings across all our client deliverables.

We employ a modified quality management system that combines elements of both ISO9000 and Six Sigma. Our quality control (QC)/quality management (QM) process is based on tracking key steps in the Symphony analytics preparation and delivery process to drive early identification and diagnosis-minimizing defects. This QC/QM process is applied to both recurring and

systematic analyses as well as ad-hoc or custom projects. Our process enables us to continuously improve our delivery as customer requirements change, through proactive identification of failure modes and ongoing measurement of the effectiveness of process improvements.

PatientSource™ is not a payer-centric source of information. The sample of patient and claim activity is unbiased and representative from an overall patient demographic, geographic and payer type.

Active patients in the PatientSource™ represent an unprecedented 17 out of 20 people in the current US population—with each patient's related medical, hospital, and prescription events harmoniously linked. On average, PatientSource™ contains an incredible 4+ years of health history for each active patient. Containing more than 3 petabytes of data for 100 billion+ patient-based health transactions, aggregated from more than 900,000 data sources, PatientSource™ provides our customers with access to the most comprehensive patient insights achievable in today's marketplace.

In addition to patient attributes, and practitioner-level data feeds with projected new product starts and complete source of business reporting, our PTD dataset provides enhanced insights into medical payer, prescriber, and remittance events.

As stated above, PatientSource™ is not impacted by a patient's change in payer or change in insurance as the patients and claims come directly from switch & service networks. A patient is only lost within our claims sample in two cases:

- Patient changes to a provider (pharmacy, physician, or hospital) not in the longitudinal sample
- When a person marries, changes their last name and insurance carrier (card holder ID) all within a matter of a few days

Being an open database, the only limitation is (as stated above) is if a patient changes to a pharmacy or provider not in the sample. This is addressed via the eligibility rules/panels when conducting longitudinal analyses, which were explained above.

DiagnosticSource™ provides real world insights into diagnostic orders and results across the enterprise clinical, HEOR, new product planning, commercial operations, and brand management. DiagnosticSource™ provides timely patient-level insight into diagnostic test orders and results across a broad range of disease states enabling use cases across the clinical and commercial continuum. It provides real world insights with extensive data, a comprehensive network, and high-fidelity linkage to Symphony's patient claims repository, Integrated Dataverse (IDV®).

DiagnosticSource™ includes:

- Test—Name, number/code, result description, and interpretation
- Ordering Physician — NPI, first name, last name, and specialty
- Account—Name, address, city, and state
- Patient—SynomaID® (2), gender, and age

Additional information such as treating physician, diagnosis and treatment, payer, and follow up visits can be derived using IDV®. Final layout and data elements may vary by lab partner.

- The combination of DiagnosticSource™ data and Symphony's Integrated Dataverse (IDV®) patient repository powers greater insight into diagnosis, treatment, and the patient journey, which helps:
 - Right-size target patient population
 - Optimize commercial strategy
 - Drive diagnostic education
 - Enhance patient journey

Graphic available in attachment with submission.

20. Provide data delivery options, available frequency options (daily, weekly, monthly etc.) and data lags by claims type (Rx and Mx). Please provide data maturity curves specific to Seagen product basket.

***Note: you may upload data maturity curves in following question.**

PatientSource datasets can be delivered as weekly, monthly, Quarterly, Semi-annually, and One-time deliverable.

Here is a high-level visual representation of how the data lag effecting Prescriptions (Rx) vs Medical Claims (Mx) vs Hospital claims (Hx). Rx data matures quickly as compared to Mx data that takes more longer time and Hx claims the longest to mature.

Mx & Hx takes longer to mature cause a medical office and Hospital can take up to 60 days to file a claimsclaim after the patient visit. On top of this you will also have the consider the lag caused due to data processing.

The graph you see below was created to show the backfill for a month, so the zero point on the axis is month end and showing what percent of that month is available as of a given week.

The graph below (included in answer 21) is a better one to use for a weekly view. You consolidate the view for 4 weeks to consider the monthly lag for data to mature.

21. Please upload data maturity files here.

[Seagen_Question_21_Response.pdf](#)

22.

Describe your overall coverage and quality of experience in patient data in oncology data?

What is the availability of oral and infused oncology therapy data?

What restrictions (if any) do you have in the oncology market data

Graphic available in attachment with submission.

23.

Do you offer subscription services powered by Longitudinal Patient/Claims data? If so, please explain.

What is the source of the patient claims data?

What is the period (duration) of claims?

How frequently is the data updated?

Yes, the patient longitudinal data can be accessed weekly, monthly, quarterly, semi-annually, and Annually. The patient dataset can be designed to be accessed even on daily basis. Symphony's data is captured when pharmacy and medical claims are adjudicated through service bureaus and pharmacy switches like Relay Health. The capture is representative of Medicare, Medicaid, Commercial and Assistance Programs.

24.

What is the data access structure for your data sets?

Are there any issues or restrictions for snowflake?

Provide complete data dictionary for your datasets

The PatientSource dataset can be accessed as pipe delimited file or any other preferred file that can be transmitted through SFTP or any cloud platform. There are no restrictions for snowflake and below is the overview of the current access to data via a Snowflake Shared Object which grants the tables to SEAGEN's SNOWFLAKE.

Graphic available in attachment with submission.

25.

What is your level of CMS patient data integration and capture for oncology products?

Do you have FFS and Managed CMS claims data?

Symphony captures both Managed and FFS Medicaid as well as Medicare (Standard and LIS) patient level pharmacy and medical claims. We capture this data through service bureaus and pharmacy switches like Relay Health.

26.

What lab data do you have for oncology patients?

What types of tests and attributes are available in the lab data? Please provide data dictionary for lab data.

Is lab data integrated with claims data having a common IDs for patients, HCPs, and payer dimensions?

What is the frequency and source of lab data?

Symphony Health has an existing partnership with Quest lab data, which allows us to immediately integrate the lab data with the Symphony Health longitudinal data at the unique patient level. Lab data can be integrated with the Symphony Health patient longitudinal data via Synoma de-identified, encrypted patient ID, a patient's HCP, and Symphony's medical and pharmacy payer dimensions. Once we have the data in house, we can link it to the client specific, encrypted IDs.

We have the ability to work with additional lab vendors if requested by a client. The frequency of delivery is also flexible, and data can be delivered as frequent as daily, weekly, monthly, quarterly, or annually.

27.

How do you quality-check your data for accuracy?

Please specify any procedures that you have in place to catch and correct issues prior to data going to clients?

How do you ensure the highest quality data that can be trusted; and if an issue is found by a client, how is this handled?

Below are the Quality Check procedures in place for Seagen:

- Current vs. Previous Deliverable Compare for All Immunology Claims and Humira Claims Only by Indication by:
 - o Metrics: Units, Quantity, and Script Count
 - o NDC Count (distinct)
 - o Patient Count (distinct)
 - o Physician Count (distinct)
- Current vs. Previous Deliverable Compare by:
 - o Week Ending Date
 - o Vendor Source (Symphony and Private Feeds)
 - o Indication
 - o Drug Name
- Current vs. Previous Deliverable Compare by (used for Internal QC only):
 - o Pharmacy Counts (distinct)
 - o Practitioner/Account Counts (distinct)
 - o Data Type (Script Counts)
 - o Vendor Source (Script Counts)
- Referential Integrity Check
 - o Data File vs. Demographics File
 - o Data File vs. Product File
- Final File Layout QC and Flag Files QC

28.

What changes have you made to your data supplier network in the last 1 year? Can you provide estimate changes to the data volume based on the recent changes (e.g.: % new vs recurring each year). Please share examples of Oncology related data supplier disruptions in the last 1 year.

28a. What changes have you made to your data supplier network in the last 1 year?

Symphony Health is committed to investing in our data sample. Over the last year while we have not added any new suppliers to our database, our overall claim volume increased based on our current supplier's organic growth. Also, we are actively researching new suppliers for 2023. This includes EMR, Lab and Medical / Hospital Claims suppliers. These supplier considerations have been added to our 2023 data budget.

28b. Can you provide estimate changes to the data volume based on the recent changes (e.g.: % new vs recurring each year)?

- Over-all 2020 claims were lower due to Pandemic so that cannot be used to compare YoY change
- Recent quarters normally reflect lower when compared to previous year quarters due to latency in reporting of Hx and Mx claims (Data restates for 27 months of history)
- No new supplier added in the last 24months

- Change in volume is reflection of organic growth by Data Suppliers

29. How are changes to your data suppliers managed and communicated with pharma manufacturers? Please provide examples of Oncology related data supplier change communicated to the customers in the last 1 year.

Symphony has an established communication protocol called, the Field Force Advisor (FFA). The FFA is used to distribute a unified communication to all impacted pharma manufacturer clients regarding changes or modifications that could have been applied to Symphony's data. Please see sample FFAs have been shared as a response to #30 of this RFI.

30. Option to upload examples of Oncology-related data supplier change communications.

[Seagen_Question_30_Response_1.pdf](#)

[Seagen_Question_30_Response_2.pdf](#)

31. Can patient claims data be used for field triggers (based on diagnosis and/or Rx business rules)? If yes – provide key aspects on how your offerings are differentiated for field triggers (data lag, integration with CRM or reporting platform etc.)

Yes, Symphony has successfully executed simple to complex triggers across multiple markets for several clients. These triggers can be designed using Rules Based triggers and/or machine learning algorithms or lab data results. The triggers can be generated at daily, weekly, monthly cadence depending on the client's requirements.

32.

What socioeconomic and demographic data do you have including: race ethnicity, socioeconomic status, level of access to care by location, distance to advanced oncology sites?

What is the source of the data and how frequently is the data updated?

At what level can this data can be reported (HCP, Geo, National etc.)

Symphony's patient level data has the ability to easily include several non-standard patient demographics, such as Patient Race, Patient Ethnicity, Patient Household Income, Patient Net worth, Patient Education Level along with the standard patient demographics (age, gender, zip2 and state). We receive this information from a data partner, and current contractual relationships do not allow us to disclose the source of this.

In addition to the fields listed above, Symphony Health has the ability to link socio-demographic information at the patient level as well to assist with more demographic related analytics. These fields are outlined, but not limited to, in the slide below.

Graphic available in attachment with submission.

33. Please provide us with your firm's position regarding use of data for publication:

Are there any considerations or restrictions regarding use of your data for publication or conference presentations?

Do you have examples you can provide of published studies and/or presentations using your data?

Have your data been used for regulatory and or HTA submissions? Please explain.

Clients are required to get Symphony's written permission to use data for external purposes outside of their internal business operations for publishing, disclosing, or sharing data. This would include things like detail aids, price transparency websites, paperspapers, and publications, etc.

Symphony has an established process for providing this permission to clients:

1. Client to complete the attached Data Publication Approval Request form. Please ensure the form is filled out completely. A couple key requests:
 - a. Ensure the exact claim is specified and where the citation will appear
2. Once the form is completed, send to internal review. Please include the manuscript, slides, sale sheet, etc. when possible (this will only help speed up the process)
3. Once all the necessary information is received, the TAT will be 5-7 business days

Please note we do not provide data validations, meaning we do not rep and warrant data statements or claims. This approval is simply an acknowledgement that we are granting permission for them to use the data in the requested external matter in accordance with contract requirements.

34. If applicable, upload file(s) to support answer to previous question here.

[Seagen_Question_34_Response.pdf](#)

6. Data Evolution

35. How are you evolving your patient data strategy and strategic focus based on your knowledge of your clients' needs?

Symphony conducts primary market research with our clients to better understand their organization's strategic objectives, market trends, and patient data needs for both of the near and long terms. Our most recent assessment has confirmed the following market trends and needs:

1. Drive toward Patient Centric Strategies including developing a better understanding of the treatment journey and how to engage healthcare practitioners, consumers and their caregivers/advocates, and payers. Clients have clearly told us that they need more and richer patient level data including healthcare claims, clinical lab, and genomic data, EMR, and the ability to integrate data such as consumer data with healthcare claims to optimally understand the patient journey.
2. Value-Based Care and Health Outcomes are becoming increasingly important as regulators and payers are looking for the brand to deliver better efficacy, and an improved safety/side effect profile and/or reduce the overall burden of disease for the patient and the healthcare system. Clients are launching new therapeutic approaches, distribution channels, and payment for better treatment outcomes.
3. Focus on Digital Approaches and Reach: COVID has hastened the digital transformation and our customers desire to better engage their customers beyond traditional tactical approaches and expand their digital footprint with customers. This means using consumer and promotional data to understand how to increase engagement and product satisfaction.

Symphony Health is committed to making incremental data investments to enrich our already industry leading Integrated Dataverse (IDV) ®, which provides the most comprehensive and interconnected source of healthcare data in the industry. Bringing together near-census point-of-sale prescription data with extensive prescription, medical, and hospital claims, the IDV offers one consistent data platform across the provider, payer, and patient dimensions with specific views and tools to answer key questions and facilitate critical commercial processes within sales, marketing, and managed markets insights.

36. How are you addressing the evolving healthcare landscape and what information and data does your organization see as most important to help your clients answer their most challenging questions?

Symphony Health is addressing our customers' needs in the following ways:

1. Continuing to Commercialize Data in a Sustainable Manner
 - Symphony Health will continue our long legacy of ensuring a long term long-term consistent supply of provider, payer, and patient data and contingency plans by partnering with our data suppliers within long term agreements which offer broad data use for transactional data sets, as well as analytical offerings.
 - We will also continue to extend the value propositions the we commercialize to the market by expanding high value consulting and analytical services back to our data providers beyond data sets, such as support for clinical trials and marketing and practice management consultative support.
2. Connecting to the Complete Healthcare Data Ecosystem
 - Acquire additional professional/institutional claims, EMR and other data sets to continue to enrich our longitudinal view of the patient journey with a focus on EMR, closed panel, and professional and institutional healthcare patient claims.

- Enable reliable data integration through Symphony Health's SynomaID™ tokenization platform. Our exclusive SynomaID provides a robust, HIPAA compliant methodology for accurately linking patient level data across sources without exposing protected health information (PHI). This engine ensures that all PHI is completely removed, while utilizing the essential clinical elements of the information in an encrypted, tokenized manner to create a consistent identifier across all sources of health data. SynomaID is leveraged by our customers to link patient records including traditional claims and prescriptions data, electronic medical records, lab data, patient registries and genomics data for modeling and analysis. Our multi-tokenization process may be leveraged to link across additional data sets (i.e.i.e., dual tokenize between Synoma and Datavant to link transitions with a Synoma proxy ID to Datavant tokenized patient data).

3. Enhancing our Solutions with Patient/Provider Collected Data

- Symphony Health will leverage our clinical trial tokenization and patient opt-in solutions for additional data collection opportunities.
- Payer and IDN Panels, KOL and Influencer Panel Research, as well as primary Research with HCPs and consumers will also enhance our IDV foundation.
- We have continuecontinued to explore novel ways in which to enhance our commercial value to our customer base, such as investment in device and patient collected data, including wearables and sensor data.

4. Healthcare Intelligence:

- We have and will continue our expansion of our data, analytical, and clinical expertise, such as Key Opinion Leadership in health outcomes and machine learning/artificial intelligence initiatives.

37.

How are you pipelining new data and opportunities or partnerships? What are the areas that your organization is prioritizing for future product offerings and services?

37a. How are you pipelining new data and opportunities or partnerships?

1. Current and new potential sources of data are continuously evaluated and pipelined for inclusion within our Integrated Dataverse based on the following criteria:

a. The quantity, quality, consistency and completeness of data and content. Criteria such as:

- i. The percent of data which may be linked to an existing patient or generate a new patient ID
- ii. Whether the data set contains substantial redactions such as the removal of HCP, payer, financial metrics, or whether the data contains a more complete view of the patient journey (i.e.i.e., closed panel data sets)
- iii. To what extent the data set adds distribution channels

b. The extent to which the data set increases the value of insights for our customers. For example, increasing our fully adjudicated prescription claims to heighten the visibility across the entire lifecycle of the claim journey, submitted claims with remitted transactions for medical and hospital claims for the same patients, clinical and genomic laboratory data to support better diagnosis and treatment selection.

c. The extent to which the data improves our master data management. For example, linkage between HCPs, accountsaccounts, and their larger organizations (i.e.i.e., IDNs, group practices, specialty networks, etc.).

d. The extent to which the data has the necessary data use rights to fit within our healthcare ecosystem, such as the flexibility in use of the data to deliver as transaction level patient data sets or as analytical tools and/or the ability to use the data for different purposes such as clinical trial recruitment, creation of synthetic controls, and clinical trial tokenization.

e. The affordability of the data relative to value for our clients.

2. Symphony will curate, aggregate, tokenize, and patient match client-specific private label data sets using our SynomaID tokenization platform, Datavant or other tokenization approaches. SynomaID is installed with many data providers and is cross-walkedcross walked to Datavant tokens. Specialty pharmacy, reimbursement hub, patient support and assistance programs, and

other data sets may be integrated at the patient level. Symphony also supports expert determination and appropriate redactions of the data for delivery through our distinguished privacy review process.

37b. What are the areas that your organization is prioritizing for future product offerings and services?

Symphony Health's primary focus is to continue our evolution as a healthcare intelligence company to ensure that we are able to best serve our customers in support of enhanced patient care and improved health outcomes. Some of highest priorities are as follows:

- SynomaID tokenization platform
- We will continue to expand our access to the SynomaID tokenization platform to more data providers in order to link with different types of data.
- Patient Intelligence:
 - In the short term, we will commercialize a completely integrated data, analyticsanalytics, and visualization Patient Intelligence platform. This innovative platform will leverage our IDV (inclusive of patient claims, EMR, lab, and physician data assets) and delivering intelligence in terms of intuitive visualizations and machine learning which will expose valuable, previously unseen insights for end-customers. Patient Intelligence enables brands to track how patients navigate the healthcare system, understand the key drivers, maximize the potential of novel treatments, highlight obstacles patient face in accessing care, illuminate targeting and segmentation opportunities, educate providers and patients, and clarify how payer tactics may influence treatment selection.
- Prescriber Patient Plus
 - The growth of targeted treatment and personalized medicine has increased the breadth of conditions which a drug can treat. Specialty markets face challenges with unique distribution models making a one-size-fits-all targeting and compensation solution outdated and sub-optimal. The newly launched Prescriber Patient Plus can help pharmaceutical manufacturers integrate and deduplicate Symphony Health claims with client procured data from specialty pharmacies, reimbursement hubs, co-pay, patient support, assistance programs, and other sources to increase market coverage of Rx data and patient insights.
 - Both Source of Business (i.e.i.e., NBRx, switching, continuing, etc.) and diagnosis can be attributed to treatment. This enables Prescriber Patient Plus to provide the healthcare intelligence necessary to more accurately target and segment HCPs, measure prescribing trends, and compensate pharmaceutical sales representatives based on full marketplace views.
 - Currently, Prescriber Patient Plus is available as a weekly, split-weeklyweekly, or monthly data feed delivery
- Metys Specialty Therapeutic Audits
 - Specialty pharma customers require a tool which combines retail measures with medical and hospital claims administrations to understand the size and landscape of their specialty brand market. To accomplish this end, our customers need to start with diagnosis to understand the population of diagnosed patients and then waterfall to understand treated patients, treatment regimens, administered tests, etc.
 - In 2023, the new Specialty Therapeutic audits will be commercialized under the Metys product portfolio to offer an online business intelligence application at the specialty therapeutic class level. This new innovation will leverage Symphony Health's prescription, medical and hospital claims, as well as available lab data, to create a comprehensive view of diagnosed patients and treatment drugs (prescription, medically and hospital administered drugs).
 - No offering like this exists in the marketplace today. It will allow our customers to quickly and easily understand the full demand of their brands, which are not dispensed through traditional retail and mail order pharmacies.
- Next generation MDM platform
 - Enhanced curation of health care account and health care provider dimensions .dimensions. Master Data Management (MDM) will be generational, multi-sourced data stewardship toolset, which will allow for faster investigations, easier processes for resolving data issues and automated quality control and assurance monitoring.
 - In addition, MDM will deliver enhanced visualization of IDN and network/affiliation structures with faster updates and richer validation to ensure best in class account and health care provider resolution.

7. Other Services

38. Do you offer Analytics Services around your or other's data offerings? If so, please explain.

Yes, Symphony offer a variety Patient, Prescriber and Payer analytics through PHORCE consulting. Symphony's PHORCE consultants are dedicated to helping our clients and partners address the most sophisticated real-world questions. Unlock the full potential and value that our vast health data can provide. Unlike others in the industry, Symphony already possesses real-world data. Our experts work with data every day—no outsourcing required.

Symphony PHORCE consultants listen to and understand clients' unique business challenges. We enable precise tactical and strategic decision-making for a diverse set of healthcare stakeholders. Our smarter data and deeper analytics allow clients to make smarter, real-time decisions.

Symphony PHORCE comprises a team of 100+ analytical, patient-focused consultants. Using Symphony's already existing patient-level data, our consultants provide tactical solutions for the patient health journey. We use Symphony's integrated repository of data to comb for healthcare insights related to payers, providers, medical outcomes, advertising campaigns, and pricing structures.

39.

Do you offer Consulting Services related to your oncology patient data offerings? If so, please explain.

How do you proactively offer ideas and perspectives based on your deep knowledge of your client's data that highlights actionable opportunities?

Symphony PHORCE consultants listen to and understand clients' unique business challenges. We enable precise tactical and strategic decision-making for a diverse set of healthcare stakeholders. Our smarter data and deeper analytics allow clients to make smarter, real-time decisions.

Symphony PHORCE comprises a team of 100+ analytical, patient-focused consultants. Using Symphony's already existing patient-level data, our consultants provide tactical solutions for the patient health journey. We use Symphony's integrated repository of data to comb for healthcare insights related to payers, providers, medical outcomes, advertising campaigns, and pricing structures.

Symphony has access to clinical subject matter experts through their parent company PRA health Sciences and ICON to assist in providing best in class consulting services.

40. Who do you view as your competitors for each of your product offerings?

Symphony Health is poised to compete with organizations who provide most types of data offerings, including staff augmentation, data aggregation and integration, master data management. We have decades of experience in providing longitudinal patient level data and projected prescriber level data for targeting and compensation. We are constantly evolving to add services which increase our footprint within an ever-changing competitive healthcare space.

41. Do you offer Master Data Management services? Data validation services?

YesYes, we do. We have extensive expertise in this area.

Symphony's Customer Master platform integrates disparate practitioner and/or facility sources and processes the information in order to link the sources together in accordance with specificwith specific business rules to create a client specific best view. Features include:

- Customer DemographicsCustomer Demographics
- Source based ranking – Best Of Breed records
- Management of "of "Frozen IC" universe and history
- Management of Best Record and Owner
- Affiliations (HCP-HCO, HCO-HCO, HCP-HCP)
- CRM API connectors (SFDC, Veeva) for DCRs

CASS Address validation
NPDES/CMS augmentation
Augmentation with online validation modules (Smarty Street)
Support industry referential (Symphony or Third Party)
Client Customer ID allocation
Data stewardship for HCPs and HCOs

Symphony's reference data, CustomerSource® can be paired with Symphony's Customer Master solution to provide a source of customer demographic (HCP/HCO), affiliations (HCP to HCO, HCO to HCO, HCO to IDN, and HCO to GPO) for the mastering process.

Graphic available in attachment with submission.

42. Do you offer data integration services? For instance, can your patient claims data integrate with other data providers like Lab, EHR, SPs etc. using standard patient tokens like Datavant?

Yes. Symphony has extensive experience integrating patient, HCP and HCO data, including for those data sources listed above.

Symphony's data integration process is built upon the following foundation:

1. Symphony claims data is tokenized using Synoma®, which is Symphony's proprietary tokenization engine. Symphony converts the tokens to a Symphony Patient ID (SynomaID®) by validating the tokens against Symphony's 307M patient master. Synoma®'s patient match rate is 95%+. All data is provided with this unique patient identifier for consistent, longitudinal tracking of the same patient across and within data sources. Symphony's patient master becomes the anchor point enabling high fidelity data integration.
2. Symphony established a strategic partnership with Datavant in early 2020. We have recently stepped up this partnership and will be collaborating with Datavant to create and maintain a Multi-Integration Token (MIT) crosswalk (SynomaID® / Datavant token). MIT offers access to the largest patient data ecosystem available. Data source examples include Lab, EHR, SP, HUB, Copay, REMS, and IOMT.
 - a. Unique to Symphony, all data deliverables can be provided with both a Symphony Patient ID (SynomaID®) and Datavant Tokens 1 and 2. Symphony and Datavant are taking this partnership level to the next level by creating an enhanced crosswalk that will connect more than 90% of the Datavant tokens to SynomaID®s.
3. To provide even greater patient matching fidelity, where PII is available at the source, Symphony recommends that a data source specific MIT is created by simultaneously passing the PII through multiple tokenization engines. Doing so yields a token crosswalk with patient match rates of 95%+, offering our clients the highest fidelity longitudinal patient matching across tokenized data ecosystems.
4. Symphony is flexible and open to adding other tokens to the Multi-Integration Token (MIT) crosswalk if it would benefit Seagen.
5. Beyond applying a consistent Patient ID or token, when applicable, Symphony's adds its standard HCP, HCO, Payer and Product dimensions.

Data Integration Processing

At a high level, Symphony's key data integration process flow steps are:

1. Tokenize the PII at the data source, including a Linking ID to connect to the related Fact Data.
2. Patient match the tokens to Symphony's 307M Patient Master and related tokens from Symphony's Multi-Integration Token (MIT) crosswalk.
3. Replace Linking ID with the SynomaID® (Symphony Patient ID) and MIT tokens.
 - a. Apply Symphony's Enhanced Payer and Medical Payer processing to enhance the source data.
 - b. Integrate and de-dupe transactional data into standard Symphony data deliverables using the applicable Symphony dimension (Symphony Patient ID, Practitioner ID).
4. As necessary, apply privacy redactions to data to comply with the Expert Determination Report.
5. Transfer privacy compliant transactional or integrated Symphony data to Client.

43. What products and services do you provide that integrate various data sets for a more comprehensive understanding of markets?

Symphony's robust integration process provides clients with the ability to integrate almost any data source consistently by patient, practitioner, plan, and outlet. Symphony can further take external data sources and integrate them into Symphony's Integrated Dataverse® (IDV®) data to provide a client specific, augmented dataset that is more complete than either source by itself.

Symphony can integrate across any or all dimensions within our IDV®. Our approach is flexible and comprehensive. As shown in the figure below, Symphony has extensive experience in the integration of all the sources listed. Beyond that, any patient level data source that can be tokenized can be funneled through Symphony's data integration services.

Symphony also offers data enrichment services that leverage IDV® (e.g., Enhanced Payer Rx and Mx), as well as applying Symphony's standard dimensions to standardize and simplify linking and combining of data assets.

Symphony will partner with Seagen to personalize and optimally leverage the integration of different datasets to maximize informatics insights and value.

Graphic available in attachment with submission.

44. Do you offer staff augmentation services? Please describe your typical roles, pricing, and oversight.

Yes, we do offer staff augmentation services.

The typical roles are as follows:

Data Analyst/Scientist: within Symphony, we consider the data analyst/scientist to be responsible for all aspects of the data manipulation and analytics. This includes, but is not limited to, database procurement, preparation and manipulation for analytics or warehousing. Analytics could include the simple analytics, such as persistency, compliance, length of therapy analytics, as well as more complex analytics, such as machine learning, modeling, and predictive measurements. This role can be held onshore, on-site at Seagen or overseas, remotely.

Engagement Managers: Within Symphony, our Engagement Managers are the managers of the data analysts and scientist to ensure streamlined performance by the Data Analysts/Scientists and acts as subject matter expert on client needs associated with data, including business modeling and design.

If an epidemiologist or technology-specific role is required, then Symphony can develop this with Seagen as well.

45. What is your overall turnover rate for your staff augmentation roles, if you provide such roles? What is your average tenure on the staff augmentation teams for each role?

The current engagements we are currently running staff augmentation with have had zero turnover in our onshore, onsite staff. We have onshore, onsite staff augmentation team members who have been with their organizations for over 4 years.

46.**Are any of your services offshore?****Do you offer an onshore alternative?****Do you have hybrid models?**

Yes, as mentioned above, we can utilize our offshore team members to increase the number of Data Scientists and Analysts available to Seagen. We do offer onshore alternatives with the option to create a hybrid customized model of staff augmentation (which is how we currently run our staff augmentation programs).

8. Pricing/Contracting

47. Can you meet a deadline for a contract signing of October 1, 2022?

Yes, Symphony Health is prepared to meet a deadline for contract signing on October 1, 2022; however, we do ask for a reasonable time between notification of award and October 1, 2022 to complete any required privacy reviews.

48. Are your terms flexible for each individual component of your services concerning contract length? (i.e., some stand-alone services can be contracted for 1 or 2 years, while others may be 3 years)

Yes, we can be very flexible on our contracting, and contract length. We would not be required to include the same contract length for each item including on a single SOW. If required, more than 1 SOW can be created.

49. What out-clauses do you typically offer with contracts on data purchases?

"Out clauses" are no longer typical practice for Symphony Health. We have standard language that allows for the movement of funds from one line item of a SOW into an ad hoc fund if necessary. The terms of the ad hoc funds require the funds to be utilized prior to the end of the calendar year on services not otherwise contracted for by Seagen.

50.

Are there any restrictions to the use of data that you sell to Pharmaceutical Manufacturers?

What is your policy around TPAs, and do you block any companies from entering into a TPA with you?

Are there any additional restrictions on reporting HCP level data to sales or medical teams?

Symphony has an established TPA process in place to ensure compliance with all rules of law and with Symphony's contractual obligations to our data and business partners. The existence of Third-Party Agreements and associated agreements are critical to our partnership with our clients to ensure that others outside of our organizations are held to the same standards to which we are held. Symphony is undergoing a revision to its Third-Party Access process and program which will result in the following:

- Online, automated tool for request, approval and document processing related to third party access
- Programs which enable whitelisting of Vendors or global approval by client organization
- Note that with Whitelisting, there is still an obligation to inform Symphony of use and to complete any other required paperwork associated with Data Agents for prescriber level information.
- Assured compliance with all contractual obligations

The new process will result in faster completion times (4-5 business days from receipt of all inputs) and the assurance that all related documents including relevant Data Agent agreements are executed in compliance with Symphony's and its' clients' contractual obligations.

Today, the process is more manual, but has undergone a series of standardizations over the past 12 months to enable a faster completion cycle. There are currently no specific SLAs in place, but Seagen can expect an 8-10 business day turnaround from the time of receipt of the request with all required information to a set of final documents available for signature.

It is important to note that while Symphony has dedicated substantial resources to improve the current process by dropping unnecessary steps, adhering to a standard set of review and approval steps, there are components that are outside of Symphony's control but are required in order to meet all obligations. This includes the completion of Data Agent Agreements by the vendor when practitioner demographics is being shared, review and signature of the TPA form by the Vendor and an accurate and detailed description of the use case. We continue to try to improve the experience for both our clients and they valued partners. With the advent of our new process, there will continue to be items out of our control, but the automated system will allow for easy tracking of status by clients and Symphony to enable greater visibility to any issues that may arise.

Any third-party data use outside of Seagen would require an approved TPA in place to share data and analytics.

9. Compliance/Security

51. Please outline your HIPAA compliance protocols.

Symphony has a very robust patient data privacy process. The Symphony Privacy Team reviews every data deliverable and related linking and combining requests to ensure they in accordance with HIPAA guidelines. We use an independent third-party expert (Mirador) to provide these Expert Opinions and/or Expert Determinations. Safe Harbor designations are rarely used.

52. What is your policy concerning on-site work since COVID-19? What are your plans moving forward to allow for on-site work?

Symphony Health, an ICON plc, has opened its onsite work. We are compliant with each individual's organizations requirements associated with COVID-19, including (if required) providing proof of vaccination or a negative COVID test prior to entering a partner's building.

53. What is your data continuity plan?

We have a documented plan and we backup to the cloud and also replicate to another data center.

54.

Do you have disaster preparedness plans in place? Do you share the plans with clients?

Have you ever lost a client's data? What happened?

How would you demonstrate your ability to execute?

Yes, we do have a disaster preparedness plan in place. We do not share documentation outside of our environment because it is proprietary to our environment. We have never lost data and we perform quarterly tests.

55.

Security of IT/Data structure – please provide supporting documentation regarding your data center and how does your structure decrease risk for _____?

IT structure

Data security & HIPAA / HITRUST Compliance and Certification

Back-up functionality

Operational % uptime

Back-up generator

Location of back-up data center

Internal Audit function

All data is encrypted at rest and in transit, Wewe also tokenize (Synoma software) data elements that may be considered PHI. We have physical and cloud data centers and backup and replicate to them. All employees are trained on HIPAA and we encrypt the data.

Symphony Health does not share infrastructure documentation outside of our environment because it is proprietary to our environment.

56. If applicable, upload file(s) to support answer to previous question here.

Task	SH Team	Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8	Week9	Week10	Week11	Week12	Week13	Week14	Week15	Week16
Signed SOW from Client	Gita Mishkin																
Define/Modify Current Market Definition	Shawn ONeill / Swaroop Satya																
Create Market Definition	Shawn ONeill																
Market Sizing and Analysis	Shawn ONeill																
Client Sign off on Market definition	Shawn ONeill / Swaroop Satya																
Build code to create full refresh and Monthly deliverable	Shawn ONeill / Swaroop Satya																
Design review and sign off	Shawn ONeill / Swaroop Satya																
Execute code	Shawn ONeill / Swaroop Satya																
Full refresh Data Extraction	Shawn ONeill / Swaroop Satya																
QC Process and validation - Unit and Integrated Testing	Shawn ONeill																
Full Refresh delivery review and approval	Shawn ONeill																
Text file creation	Shawn ONeill																
File Delivery	Shawn ONeill																

First deliverable as per the new contract

Final deliverable on the current contract

Question: Please provide the counts of patients by diagnosis in the table; please note that all time periods are 2-year/24-month time periods. Specific IDC codes are provided in spread sheet titled “Seagen ICD CPT Codes”

Patient Counts by Diagnosis										
	Unique Patients		Total Claims		Unique NPI		# Academic Institutions		# Community Institutions	
Category	2018-2019	2020-2021	2018-2019	2020-2021	2018-2019	2020-2021	2018-2019	2020-2021	2018-2019	2020-2021
Hodgkin's Lymphoma	103,767	94,603	919,784	823,793	110,932	103,191	132,593	111,867	599,738	549,108

Question: Please provide patient counts by payer type; please note that all time periods are 2-year/24-month time periods. Does your payer data include plan data including: plan number, co-pay amount, allowed cost?

Patient Counts by Payer Type						
	Commercial	Medicaid	Medicare	Cash	Other	Total
Category	2020-2021	2020-2021	2020-2021	2020-2021	2020-2021	2020-2021
Hodgkin's Lymphoma	76,513	10,098	18,927	422	3,587	94,603

Yes or No: Payer data include:

Plan Number:	Yes
Co-pay Amount	Yes
Allowed Cost	Yes, for Medical and Hospital Claims

Question: Please provide the counts of patients by diagnosis in the table; please note that all time periods are 2-year/24-month time periods. Specific IDC codes are provided in spread sheet titled “Seagen ICD CPT Codes”

Patient Counts by Diagnosis										
	Unique Patients		Total Claims		Unique NPI		# Academic Institutions		# Community Institutions	
Category	2018-2019	2020-2021	2018-2019	2020-2021	2018-2019	2020-2021	2018-2019	2020-2021	2018-2019	2020-2021
Lung Cancer	910,775	863,934	13,535,458	12,722,703	388,531	383,181	1,541,298	1,401,157	8,832,101	8,421,967
Metastatic Lung Cancer	400,253	375,510	5,058,739	4,752,360	239,994	230,889	1,931,280	1,742,374	7,301,871	6,963,371
Urothelial Cancer	450,484	428,755	3,636,653	3,696,408	216,650	212,367	392,728	383,711	2,869,694	2,905,176
Metastatic Urothelial Cancer	78,737	76,537	847,261	823,821	91,140	86,120	203,030	196,541	657,563	643,835
Cervical Cancer	87,192	81,425	941,810	931,807	89,098	85,528	109,289	98,693	631,665	630,823
Metastatic Cervical Cancer	27,210	26,625	290,141	287,060	43,634	42,003	76,681	69,674	247,791	254,096
Colorectal Cancer	750,852	707,415	10,343,115	9,843,822	328,569	325,150	905,327	847,773	6,534,196	6,326,073
Metastatic Colorectal Cancer	225,614	223,398	2,720,092	2,669,350	173,405	167,474	602,428	580,606	2,274,922	2,275,775
Hodgkin's Lymphoma	226,177	217,403	2,352,849	2,254,489	170,302	162,927	415,853	384,744	1,683,153	1,654,267
Breast Cancer	2,042,464	1,949,873	23,930,255	23,043,854	410,027	409,695	3,094,730	2,888,977	17,932,646	18,107,114
Metastatic Breast Cancer	347,852	344,140	4,194,524	4,173,046	189,316	185,088	876,356	803,004	3,335,614	3,364,040

All metastatic cancer counts must have a diagnosis for the primary cancer type (e.g., Metastatic Lung must have primary of lung)

Question: Please provide patient counts by payer type; please note that all time periods are 2-year/24-month time periods. Does your payer data include plan data including: plan number, co-pay amount, allowed cost?

Patient Counts by Payer Type						
	Commercial	Medicaid	Medicare	Cash	Other	Total
Category	2020-2021	2020-2021	2020-2021	2020-2021	2020-2021	2020-2021
Hodgkin's Lymphoma	168,688	21,873	57,474	1,060	7,207	217,403
Metastatic Cervical Cancer	19,417	4,670	9,046	85	2,435	26,625
Metastatic Colorectal Cancer	160,254	22,358	94,516	786	15,678	223,398
Metastatic Lung Cancer	263,818	38,905	178,320	1,458	21,850	375,510
Metastatic Urothelial Cancer	51,805	5,096	40,045	220	4,034	76,537

All metastatic cancer counts must have a diagnosis for the primary cancer type (e.g., Metastatic Lung must have primary of lung)

Yes or No: Payer data include:

Plan Number:	Yes
Co-pay Amount	Yes
Allowed Cost	Yes, for Medical and Hospital Claims

Question: Please provide patient counts by brand (see attached spreadsheet); please note that all time periods are 2-year/24-month time periods

Brand	2018-2019	2020-2021
ADCETRIS	4,824	4,656
AVASTIN	3,261	1,966
BAVENCIO	24	43
BLENREP	-	307
ENHERTU	-	2,389
HERCEPTIN	63,576	27,609
HERCEPTIN HYLECTA	203	932
HERZUMA	3	433
KADCYLA	7,529	10,223
KANJINTI	2,699	23,245
KEYTRUDA	78,674	100,095
LYNPARZA	7,155	11,018
NERLYNX	-	-
OGIVRI	-	81
ONTRUZANT	-	701
OPDIVO	63,109	45,830
PADCEV	-	1,547
PERJETA	31,048	27,429
PHESGO	-	893
POMALYST	12,126	12,221
REVLIMID	37,094	31,914
RITUXAN	84,135	5,003
RITUXAN HYCELA	6,840	7,529
TRAZIMERA	-	4,783
TRODELVY	1	1,469
TUKYSA	20	1,093
Total Unique	350,491	269,569

Question: Please provide the counts of HER2 testing for mCRC and mBC patients (see attached spreadsheet); please note that all time periods are 2-year/24-month time periods

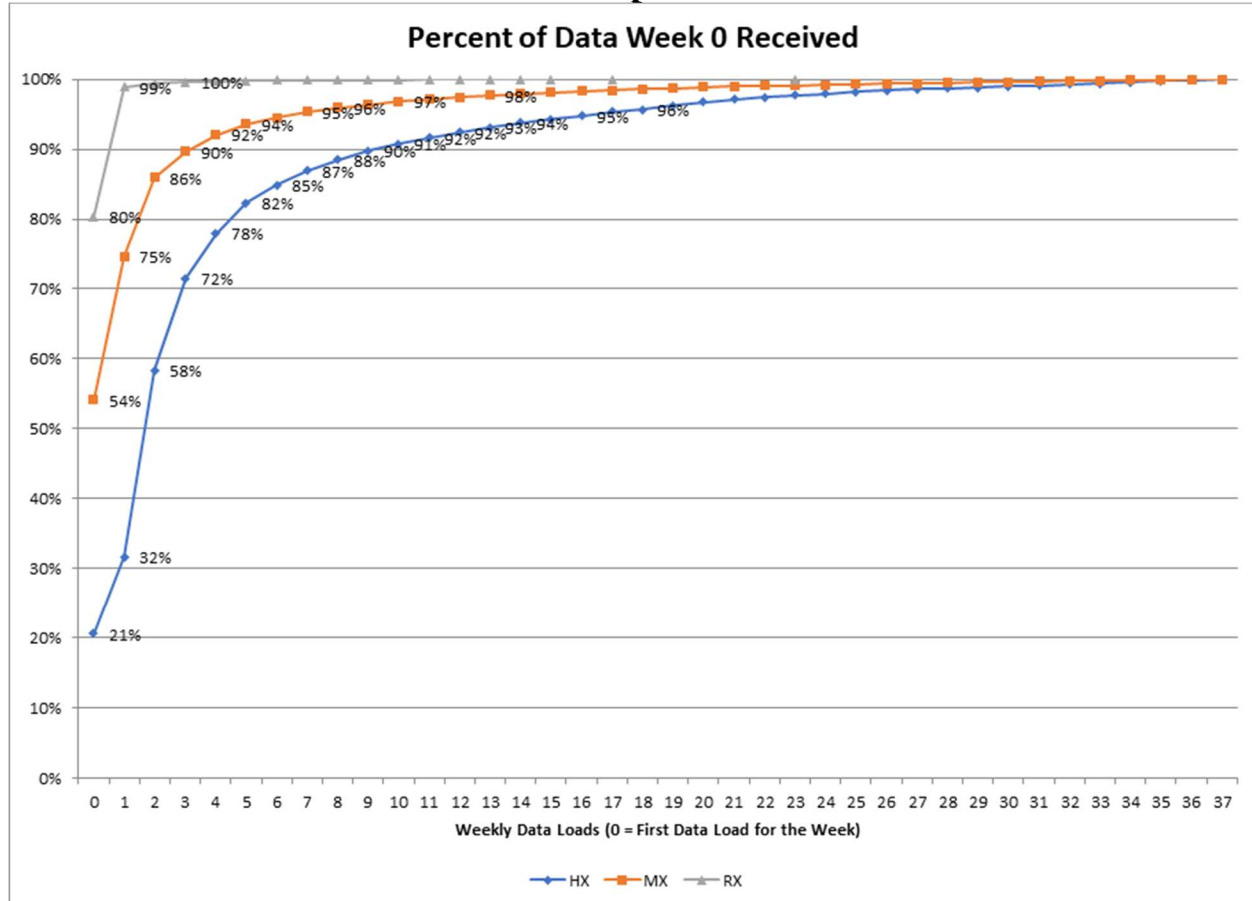
Table 4 Lab Testing - # Tests Ordered

Test	2018-2019	2020-2021
HER2 testing for mCRC patients	2,221	6,148
HER2 testing for mBC Patients	17,509	17,402
Total Unique	19,730	23,550

21. Please upload data maturity files here.

0 Files Uploaded

Time Taken for Data to Mature for a Specific Month



FFA Title and Number	ORIGINAL FFA # 210 Notification for Upcoming Restatement – Awareness & Preparation
Event Summary	<p>Market/s: Multiple</p> <p>SHS Data Assets Affected: T&C, PHAST/Metys™, Patient Rx Offerings, Lifecycle</p> <p>Channel: All Channels</p> <p>Event: Upcoming January 2020 Restatement</p> <p>Time Period Impacted: January 2017 Forward</p> <p>As part of Symphony Health’s ongoing commitment to expanding the breadth and depth of our data assets, we are pleased to announce an upcoming restatement. The restatement will add new data assets and provide greater reporting visibility across multiple therapeutic categories.</p> <p>We anticipate data availability in our parallel environment starting mid-January 2020 for all platforms, including T&C, PHAST, Patient Rx Offerings, and Lifecycle PDM-based deliverables.</p> <p><i>Note - Metys will not have a parallel view and has an anticipated flip date of Friday, January 17, 2020. A separate communication for Metys is forthcoming. UPDATE: Release date has been moved to January 24, 2020.</i></p> <p>HOW DO I REQUEST IMPACTS & PARALLELS FOR MY CLIENT?</p> <p>Requests for client sub-national impacts can begin starting the first week of January 2020. Clients will be provided with instructions for submitting impact requests in the next few days. Please allow 5-7 business days for completion of each impact.</p> <p>[REDACTED]</p> <p>EXPECTATIONS FOR SERVICE:</p> <p>AMEs and Practice Consultants are expected to obtain their client’s transition timing preferences no later than the end of January 2020.</p> <p>All clients must be fully transitioned to the restated data by July 1, 2020.</p> <p>WHAT DATA ENHANCEMENTS CAN CLIENTS EXPECT?</p> <p>1. Additional Nationally Projected Mail Order sample from May 2017 forward.</p> <p>[REDACTED] Access to additional Sub-national, Patient and Prescriber Level Specialty Mail Order data</p> <p>[REDACTED]</p> <p>3. Increased sample for select products, including Otezla, Repatha, Xtandi, and Aimovig.</p>

	<p>4. In T&C and PHAST/Metys, projection factor adjustments to account for changes in dispensing patterns for select products (Client specific impact will be available in a future communication).</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>WHAT ADDITIONAL ENHANCEMENTS CAN INTERNAL TEAMS EXPECT?</p> <p>In addition to the data enhancements, Symphony is taking the opportunity to update internal data architecture across multiple Rx assets - including T&C and Patient. Additional information regarding the data architecture and data table updates will be available in a future communication. Please be aware that affected deliverables will need to be pointing to the updated tables when the client fully transitions to the restated data.</p>
Products Impacted	All Rx Offerings, including T&C, PHAST/Metys, Patient, and Lifecycle (PDM-Based) <i>DCL tables will only have point-forward updates</i>
Clients Impacted	All Rx Clients
Resources	Product Management and Service COE
Date	<p>Date Created: 12/9/2019</p> <p>Knowledge Repository: Communication & Metrics</p>

Dear Client,

Symphony is pleased to announce a significant investment in additional data assets resulting in greater reporting visibility across multiple therapeutic categories – beginning January 2020. In preparation for this event, your service representative will be in contact to discuss impacts to your markets along with your transition strategy during the first few weeks in January.

Primary enhancements are listed below:

- *Additional Nationally Projected Mail Order sample from May 2017 forward included in national offerings.*
- *Access to additional Sub-national, Patient and Prescriber Level Specialty Mail Order data. Clients will have the opportunity to obtain the Specialty Mail Order data as an upcharge to their existing Prescriber or PTD purchase. Additional pricing details will be communicated in the coming weeks.*
- *Supplier unblocking of select products, including Repatha, Otezla, and Xtandi.*
- *Enhancements to projection to account for evolving dispensing patterns.*

Your service team will be available to address any questions you may have during your transition period.

We are dedicated to making your transition as smooth as possible and appreciate your continued partnership.

Best Regards,

FFA Title and Number	FFA # 138 PDM Updates – February 8, 2019 Weekly (January 2019 Data Month)																																	
Event Summary	1. Market/s:	Multiple																																
	2. SHS Data Assets Effected:	Patient Rx, Hx, & Mx Claim Offerings																																
	3. Channel:	Multiple																																
	4. Event:	New Supplier Feeds Available in Patient Data Mart (PDM)																																
	5. Time Periods Impacted:	See detail under each offering																																
	The following enhancements will be available beginning with January 2019 Data Month (February 8, 2019 weekly). To ensure you are prepared to respond to client requests, please see the details below.																																	
	<u>New Hx & Mx Claim Suppliers</u>																																	
	<ul style="list-style-type: none"> Available in PDM as soon as week ending closes for February 8, 2019 New Data Source #1: <ul style="list-style-type: none"> History available from May 2018 forward New Data Source #2: <ul style="list-style-type: none"> History available from January 2014 forward Includes both submitted and remitted claims Impact to Patient Hx and Mx Offerings Only <i>Clients are given the option to exclude new suppliers from deliverables</i> 																																	
	<u>Return of Specialty Pharmacy Chain in Patient Rx Sample</u>																																	
	<ul style="list-style-type: none"> Available in PDM immediately upon week ending February 8, 2019 close History available from June 2017 forward (week ending 6/30/2017) Impact to Patient Rx Offerings Only 																																	
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	<u>Return of Mail Order Specialty Pharmacy in Patient Rx Sample</u> <ul style="list-style-type: none"> Available in PDM immediately upon week ending February 8, 2019 close History available from July 1, 2016 forward – eliminating any historical gap from date store dropped out of sample Impact to Patient Rx Offerings Only
	Products Impacted Patient Hx, Mx, and Rx Claim Offerings (NO LIFECYCLE FOR RX)
	Clients Impacted Multiple
	Resources Product Management and Service COE
Date	Date Created: 1/11/2019 Link: Knowledge Repository: Communication & Metrics

Approved Client Communication

Dear Client:

As a result of Symphony's continuing dedication to providing clients with the best insights into patient trends, we are pleased to announce the latest updates to our patient sample which will be available week ending February 8, 2019 (January 2019 data month):

Two New Hx & Mx Claims Suppliers

- The new sample additions substantially increase Hx claims by ~30% and Mx claims by ~2%.
- New Data Source #1:
 - History available from May 2018 forward
- New Data Source #2:
 - History available from January 2014 forward
 - Includes both submitted **and remitted** claims **IMPACT ATTACHED**

Specialty Rx Pharmacies Back in Sample

- Although the overall national level increase to patient Rx's is minimal, select specialty products will display a significant boost in reporting trends.
- Specialty Rx Source #1:
 - Symphony previously communicated that a specialty chain had ceased reporting through a switch provider as of week ending 6/30/2017. All missing history from week ending 6/30/2017 point forward will be available.
- Specialty Rx Source #2:
 - Symphony previously communicated that a mail order specialty store had ceased reporting as of July 1, 2016. All missing history from week ending 7/1/2016 point forward will be available.

Sub-national impacts will vary depending on the market so sample impacts are available for directional guidance. Please reach out to your account service manager if you have any questions.

Data Publication Approval Request Form

This form is to be completed by a Symphony Health customer when requesting permission to publish contracted Symphony pharmaceutical claims and transaction data, IDV® (Integrated Dataverse) or other brands or referencing Symphony as the source of the data and/or information. Please complete all fields as applicable and then return the form to your Symphony Health representative.

Please allow a *minimum* of five (5) business days for final approval.

NOTE: Symphony Health makes no representations regarding the adequacy of its data for the purpose of substantiating any advertising and promotional claims made by a client. Each client remains solely responsible for full compliance with any and all applicable advertising and marketing laws and regulations. Provision of approval for publication of data is contingent upon your acknowledgement of sole responsibility for accuracy of the claim made, as well as for compliance with any and all applicable marketing and advertising laws.

Client Information

Client Name:					
Client Address:	Street				
	City		State		Zip
Client Contact:	Name		Title		
	Email		Tel		

Request Information

Approval Deadline:	
Drug or Therapeutic Class:	
Exact Claim:	
Exact Citation to SHA / WKPS:	
Where Citation will Appear:	Select
If Other, Please Describe:	
Additional Description (optional):	

Data Source Information

Time Period of Data Pull:	through	No. Mos:	
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Retail	Non-Retail	Managed Care / Longitudinal
<input type="checkbox"/> Metys® <input type="checkbox"/> PrescriberSource® <input type="checkbox"/> Prescriber with Payer Focus <input type="checkbox"/> Retail Ad Hoc <input type="checkbox"/> Other Retail	<input type="checkbox"/> Metys® <input type="checkbox"/> NonRetailSource® <input type="checkbox"/> NonRetailSource® Ad Hoc <input type="checkbox"/> Other Non-Retail	<input type="checkbox"/> PTD / APLD <input type="checkbox"/> PayerSource® <input type="checkbox"/> PayerSource® Ad Hoc <input type="checkbox"/> Patient Adhoc <input type="checkbox"/> DiagnosticSource® <input type="checkbox"/> Other