There is currently a great deal of excitement in pharmaceutical companies in harnessing insights from Big Data. Good progress has been made at some companies in gathering insights for submission to payers and providers. Some other companies are concentrating on using Real World Data for guiding R & D programs. Progress is also being made at other companies for harnessing Big Data for gaining a marketing advantage.

Savvy partnerships will drive the success of many future initiatives. This study will provide you the perspective and insights to help you develop your Big Data strategy, forge beneficial partnerships and take other steps to ensure the success of your Big Data program.

A new syndicated study from:

Alliance Life Sciences
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www.alscg.com

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Introduction – Developments in Big Data deployment

Intense activity is underway in many organizations to harness the benefits of Big Data insights. Following are some of the examples:

Collaborations are driving - and will continue to drive - the harnessing of insights from Big Data.

These collaborations represent synergies across:
- Diverse Expertise and Skill Sets (e.g., software, analytics)
- Multiple Disciplines (e.g., Marketing, IT, R&D)
- Different Stakeholders (Pharmaceutical Companies, Payers, Big Data Suppliers, Big Data Analytics Experts and Academic Institutions)

Pharmaceutical companies can harness specific Big Data insights for incremental benefit in marketing.

They can:
- Determine behavior of KOLs
- Identify physicians with higher propensity to prescribe a particular drug
- Gauge success of sales visits and marketing efforts
- Help understand internal operations - where money is being spent/overspent.

There are potential new areas of collaboration between Pharmaceutical Companies and Payers.
Combining claims data with physician practice characteristics can be used to develop more meaningful physician profiles. Pharmaceutical companies can incorporate these insights into Call Planning and Physician Detailing. Drug adherence programs can be developed by combining claims data, lab data, pharmacy data and self-reported patient data.

Payers are currently using Big Data Insights to drive a range of initiatives.
For example Big Data insights are being used to:
- Drive down costs e.g., they are identifying and addressing drivers of 30-day hospital readmissions.
- Develop targeted Case Management Programs by segmenting members based on risk profile.

Numerous drivers point to the expansion of use and application of Big Data.
These include:
- Impact of Healthcare Reform on pharmaceutical industry’s profit margins
- Affordable care act/Accountable care/meaningful use of EHRs
- Sunshine Act ‘s disclosure laws
- Mass networking/increased use of digital platforms by patients, doctors, insurance companies, etc.
- Advances in tools to capture and analyze huge amounts of data
Objectives of the study

The objective of the study is to provide perspective, opportunities, caveats and information regarding the uses of Big Data for pharmaceutical companies. This will be accomplished by providing detailed information in the following areas:

A. Current uses
   1. What are the current leading applications of insights from Big Data?
   2. What are the experiences of different companies?

B. Strategies
   1. What different corporate strategies are being used?
   2. What are the different elements of the strategies?

C. Partnerships
   Partnerships appear to be crucial for achieving success in these endeavors
   1. What type of partnerships are being forged
   2. What are the resources transacted?
   3. Which types of partnerships have worked and why?

D. Payer expectations
   1. Which Real World Data (RWD) insights are currently being exchanged between payers and pharma companies?
   2. Which other Big Data insights are payer organizations looking for from pharmaceutical companies?
   3. What actions are contemplated through the use of this data?

E. Provider expectations
   1. What type of Big Data insights are being exchanged between providers and pharmaceutical companies?
   2. What other deep data insights are different provider organizations seeking from pharmaceutical companies?
   3. What are the planned uses of this information?

F. Pharmaceutical marketers’ usage and requirements
   1. What knowledge are pharmaceutical marketers currently obtaining from Big Data?
   2. What other insights are they interested in obtaining?

   As an example of the kinds of knowledge obtained, practitioners in this field cite the example of the retail industry. Evidently, Amazon has this function so well developed that the company can often accurately predict what the shopper is going to buy before he makes the purchase decision.
G. Development of Outcomes based payment paradigm
Professionals in this field state that availability of information from Big Data sources will propel the development and adoption of Outcomes based payment paradigm.
1. What is the status of development of such paradigms?
2. Which organizations are pursuing this pathway?

H. Requirements of Research & Development managers
Some of the current uses in this category are described in Section V
1. What data is being sought to guide drug research and development?
2. What types of insights are being sought by R & D professionals?

I. Novel approaches being contemplated
Experts in this field have stated that Big Data analytics is akin to the Industrial Revolution in Information Technology. They feel that a revolutionary and visionary approach needs to be taken in furthering new applications.
1. Which new pathways are being pursued for such new applications?
2. What has been the level of progress on this front?

J. Directions taken by pharmaceutical companies
1. Which different development pathways are being pursued by various leading pharmaceutical companies?
2. What are the pros and cons of these pathways?

K. Organization of Big Data departments within pharmaceutical companies
1. How is Big Data expertise organized in pharmaceutical companies?
2. What are the different organizational formats?

L. Suppliers of Big Data
1. Who are the current major suppliers of Big Data?
2. What are their strengths and weaknesses?
3. Who are the emerging players in this area?

M. Specialized Big Data analytic companies - collaboration opportunities
Several new Big Data analytics companies have been formed in the past two years. Some of them are funded by venture capitalists; others are spin-offs of universities such as Stanford University.
1. Who are these companies?
2. What are their profiles?
3. What are their strengths and weaknesses?
4. What are the opportunities and caveats for collaboration?
Research methodology

Because of the complex and evolving nature of the topic the following multi-step methodology is being used for research on this project.

A. Perusal of published information

On account of the importance of this topic a good deal of information on this subject has been published in the various media. We have gathered this information through computerized and manual searches and have analyzed the same. This information was used to prepare the research instruments for the following research steps.

B. Payer interviews (n=15)

These will be conducted to obtain information on the following topics:
1. What RWD is being submitted to them by various pharmaceutical companies?
2. What other RWD insights are they seeking from drug marketers?
3. What are their experiences in implementing their partnerships?

C. Provider interviews (n=15)

These will be conducted to obtain information on the following topics:
1. What RWD is being submitted to them by various pharmaceutical companies?
2. What other RWD insights are they seeking from drug marketers?
3. What are their experiences in implementing their partnerships?

D. Interviews with Health Economics and Outcomes Research Professionals (n=15)

These will be conducted to obtain information on the following topics:
1. What type of Big Data insights by being used by pharmaceutical companies for HEOR purposes?
2. What insights would pharmaceutical companies like to get from payers on health economic outcomes?
3. What type of data sharing arrangements do pharmaceutical companies have or plan to have in HEOR and with which type of organizations.

E. Interviews with pharmaceutical marketers (n=15)

These are being conducted to obtain information on the following topics:
1. Which RWD derived knowledge is currently used in pharmaceutical marketing programs?
2. What new Big Data-derived insights are they seeking?
3. What are the industry developments in this area?
F. Interviews with pharmaceutical Research & Development managers (n=10)
1. Which Big Data derived guidance and insights are they currently receiving to guide them in their drug development programs?
2. What other type of information are they seeking?

G. Discussions with pharmaceutical Big Data professionals (n=10)
We are seeking information in the following areas:
1. What are the current pathways being pursued in Big Data management and analytics in pharmaceutical companies?
2. What are the emerging opportunities and problems and what are the plans for handling them?

H. Discussions with Big Data suppliers
The following topics will be researched:
1. Which type of data are they providing and what is the source and specifications?
2. What steps are they taking to ensure that the data is collected in a compliant manner?
3. What limitations do they place on the use/distribution of the Big Data supplied by them?

I. Consultations with Big Data analytic companies/experts (n=15)
These will be conducted to gain insights on the following topics:
1. What is the current state of technology for use of Big Data in Pharmaceutical Marketing and Research & Development?
2. What are the emerging trends?
3. What new developments, analytical pathways and achievements do they see on the horizon?
4. What new catalytic developments will have to take place to drive further the growth in this field?

J. Collation, analysis, interpretation and reporting of Information
All the information obtained in the above steps will be collated, analyzed and discussed by the project team. Conclusions from this information will be prepared and presented. All the information will be presented in a well-organized report.
Uses of the study

Following are some of the uses of the study as we envision it.

A. Big Data management and analytics is a burgeoning field and the primary use of this study is to gain a detailed perspective on this topic.

B. In understanding the views of payers on this topic and their specific needs in various areas including setting reimbursement based on Outcomes.

C. To learn the views of providers on this topic and learn about their specific needs with respect to Big Data insights.

D. For gaining information on marketing insights that can be obtained from Big Data on the company’s specific brands.

E. In gaining valuable competitive intelligence on how other pharmaceutical companies are using Big Data insights to gain competitive advantage.

F. For gaining valuable guidance for Research and Development programs by leveraging Real World knowledge about how competitive drugs are working in clinical practice.

G. To learn about specific analytical strategies being used for deriving insights from Big Data.

Individual companies will be able to put the report to additional uses depending on their unique situations.
Results of initial research

There is currently a great deal of excitement in pharmaceutical companies in harnessing insights from Big Data for guidance for Health Economics and Outcomes Research (HEOR), Marketing, Research & Developments and other programs.

Some of the avenues for application of this data that are being looked at are:

Characterizing diseases and patient populations by understanding epidemiology trends and treatment patterns;

Develop new products and therapies by assessing use of competitive products and prioritizing indications for development;

Assess products and therapies already in use by observing drug safety and comparing product effectiveness;

Target products and services by identifying underserved patient populations, sub-populations with superior product response and tracking message effectiveness through prescribing behavior;

(Adapted from article in Forbes, July 25, 2012.)

Partnership have been formed between Humana and Eli Lilly and Humana and Boehringer Ingelheim. Optum has formed other partnerships. These alliances need to be studied and analyzed so useful learnings can be derived.

Different pharmaceutical companies are taking varying approaches to using Real World Data. A thorough understanding of the various possibilities is necessary to implement the programs effectively and increase the Return on Investment.

Some experts have stated that Big Data processing needs to be viewed as a core competency for a pharmaceutical company. On the other hand some pharmaceutical companies have outsourced their Big Data activities. The literature on this subject states that other industries such as financial services and retailing have made considerably higher progress in the optimal use of Big Data.
This proposal was distributed to pharmaceutical companies in the beginning of July. The project was established at Alliance Life Sciences in the middle of August. Research on the project was initiated in the first week of September. Following is the schedule for implementation of the project.

- At the outset, we conducted a literature search on the topic to gather published information on the subject in online and hard copy sources. A great deal of relevant information became available through this search. We also attended conferences on this topic to gain initial information in various areas and establish contact with individuals to arrange interviews with them at a later time.

- The interviews with payers, providers, pharmaceutical marketers and R & D Managers are currently in progress and will conclude by the end of October.

- The interviews with pharmaceutical Big Data analytic companies and suppliers will be held in the first half of November.

- Data analysis and interpretation will be conducted in the second half of November. This step will be followed by discussion and interpretation of findings by the project team and preparation of the project report.

- The report is scheduled for release in the second week of December.
The following three deliverables are included in your purchase.

A. A comprehensive personal presentation regarding findings of the project. This can be provided via WebEx.

B. One hard copy of the report in an appropriate format combining text with charts and graphs and illustrative quotes from interviewees.

C. E-copy of the report in PDF file.
Credentials and experience in syndicated studies

Alliance Life Sciences is a leading consulting company providing three major types of services. They are Data and Information Services, Management Consulting and Technology Solutions. The firm is well known for its offerings in market access, market research, and syndicated studies analyzing the major trends and issues in the life sciences industry. Alliance has most of the leading pharmaceutical companies as its clients. Recently Adjility Consulting, a specialized market access and pricing consulting company, merged with Alliance Life Sciences.

The Firm’s Life sciences practice is led by Dr. Mohan Purushothaman, Executive Vice President. Mohan has several years of experience in the pharmaceutical industry. He was formerly the Head of Pricing and Contracting at Roche. Mohan has a Ph.D. from Johns Hopkins University.

Syndicated Studies

Dilip Phadnis, is the Director of Syndicated Studies at Alliance Life Sciences. He joined the industry at Becton Dickinson & Co where he was a Marketing Analyst and Product Director. Following this, for 16 years, Dilip was the CEO of Rowin Group a pharmaceutical marketing research consultancy specializing in syndicated studies. Dilip has a B. Pharm degree and a MBA from Columbia University. Dilip has conducted over 65 syndicated studies.

Project Team - Big Data Opportunities for Pharmaceutical Companies

Dilip Phadnis is the Project Leader of this study. Two other important members of the project team will be James Morgenstein and Joel Owerbach.

James is the Chief Technology Officer of Alliance Life Sciences and will oversee the technology interpretation. James has extensive experience in data warehousing and other relevant topics.

Joel Owerbach is the Vice president of Health Policy and Strategy at Alliance. Prior to joining Alliance Joel was the Vice president and Chief Pharmacy Officer of Excellus Health Plans - a payer organization. Joel has over 25 years of experience in managed care pharmacy.

The Project Director is responsible for the design of interview outlines, tabulation and analysis of the data and preparation of the report.

Other project team members have expertise in other areas such as technology assessment, executive interviewing and analysis of information.

Due to our experience and expertise in this field we are confident that we will be able to deliver a successful report to clients on this topic.

Additional information on Alliance Life Sciences is available at www.alscg.com or from the individuals mentioned below.
Price and additional information

Discount price (until February 28, 2014) $ 18,000
Regular price (after February 28, 2014) $ 22,000

If you would like to discuss this proposal over the phone or would like to arrange an in person meeting, please contact one of the individuals mentioned below.

Dilip Phadnis  Dilip.Phadnis@alscg.com  201 819 6097
Art Gencarelli  Art.Gencarelli@alscg.com  877 334 0100
Order Form

To order the report, please print this page, fill it in and scan and email to:
Dilip.Phadnis@alscg.com

Dilip Phadnis
Alliance Life Sciences
265 Davidson Avenue, Suite 310
Somerset, New Jersey 08873

( ) The undersigned wishes to purchase the syndicated study on Big Data Opportunities for Pharmaceutical Companies.

Company Name: ____________________________________________________________

By: ________________________________________________________________

Signature: __________________________________________________________

Title: ______________________________________________________________

Date: ______________________________________________________________

Address: __________________________________________________________

Telephone: __________________________________________________________