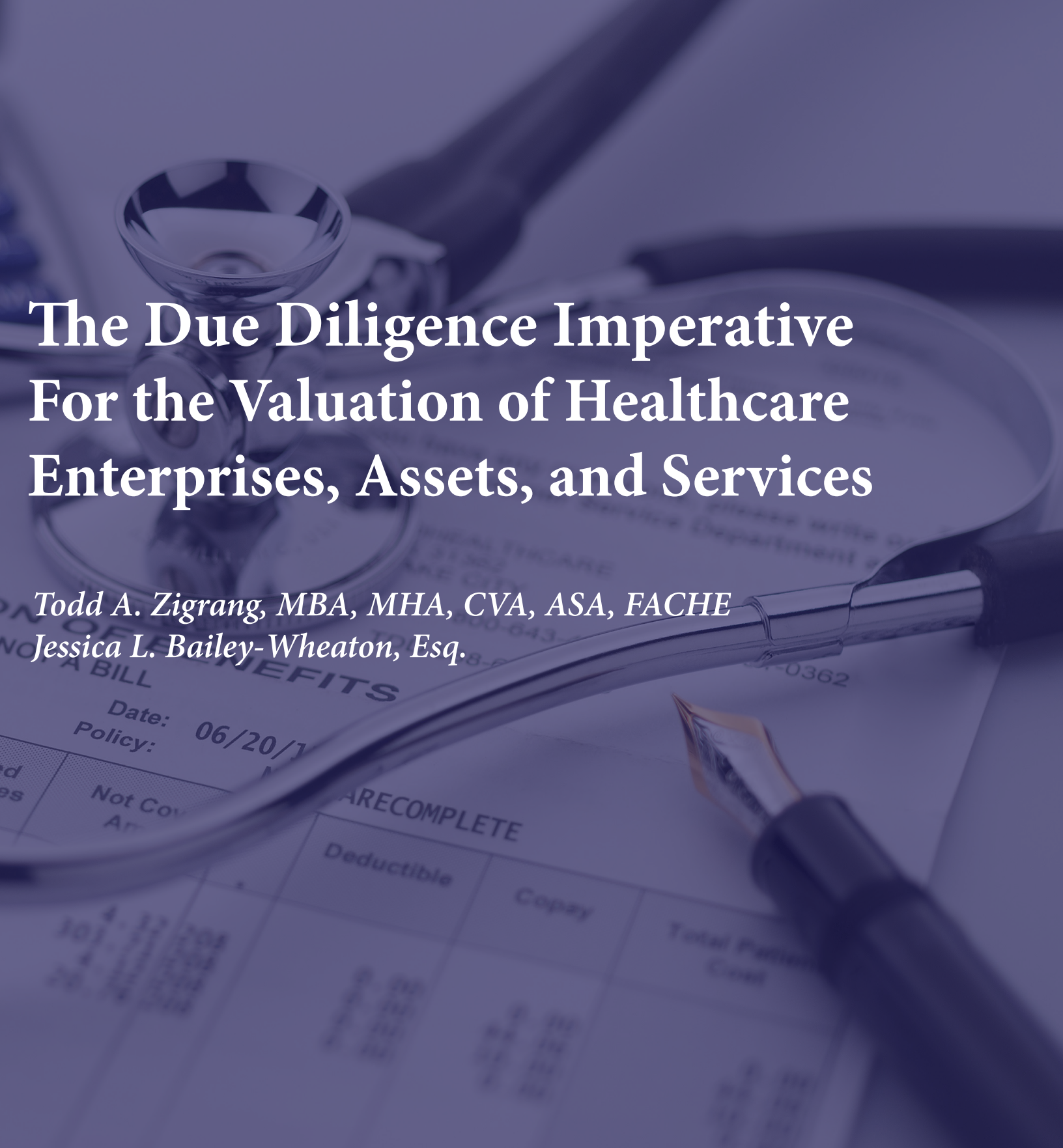

The Due Diligence Imperative For the Valuation of Healthcare Enterprises, Assets, and Services

Todd A. Zigrang, MBA, MHA, CVA, ASA, FACHE
Jessica L. Bailey-Wheaton, Esq.

HCC
HEALTH CAPITAL CONSULTANTS
2127 Innerbelt Business Center Drive, Suite 107 - St. Louis, MO 63114
www.healthcapital.com | solutions@healthcapital.com | (314) 994-7641

Introduction

With the emergence of *value-based reimbursement* (VBR) models, such as *accountable care organizations* (ACOs), *clinically integrated networks* (CINs), and bundled payment models, which rely on achieving the "*Triple Aim*" of healthcare at lower cost,[1] U.S. hospitals are increasingly looking to change how services are being delivered by seeking more collaborative relationships with physicians, including vertical integration strategies such as the acquisition of healthcare-related *enterprises*, *assets*, and *services* (e.g., physician practices), direct employment, co-management, and joint venture arrangements with physicians and other providers.

The rise of these *emerging healthcare organizations* (EHOs) to address VBR initiatives has led to a growing number and complexity of transactions in the healthcare delivery marketplace, accompanied by increased federal and state regulatory scrutiny regarding the legal permissibility of these arrangements. Most notably, government regulators (more specifically, the *Office of the Inspector General* [OIG] of the *U.S. Department of Health and Human Services* [HHS], and the *U.S. Department of Justice* [DOJ]) have, in some cases, more aggressively challenged an increasing array of these transactions under various federal and state fraud and abuse laws.

Therefore, now more than ever, conducting a level of *due diligence* appropriate to the scope and complexity of a given assignment is critical to the development of the valuation opinion. First and foremost, the appraiser serves in the role of a proxy for the *universe of typical investors and buyers* inherent in the requisite hypothetical transaction of the *fair market value* standard, which standard may not be exceeded in order to withstand regulatory scrutiny.[2]

Due diligence may be defined as:

(1) "*such a measure of prudence, activity, or assiduity, as is properly to be expected from, and ordinarily exercised by, a reasonable and prudent man under the particular circumstances; not measured by any absolute standard, but depending on the relative facts of the special case*";[3]
(2) "*a fact-finding project….designed to find hidden risks*";[4] and,
(3) "*an investigation in order to support the purchase price of the business*."[5]

There are two distinct classes of information generally required for due diligence related to healthcare valuation: (1) *general research*; and, (2) *specific research*.[6]

General research is typically comprised of information and data related to *national and regional healthcare industry trends*; *reimbursement trends*; *competitive marketplace assessments*; *medical industry specialty and technological trends*; *transactional data*; and, *investment risk/return data*, as well as, other research not specifically related to, or obtained from, the subject *enterprise*, *asset*, or *service* being appraised. General research is obtained for the purpose of providing a context within which the analyst considers the *specific research* and information gathered.[7]

Specific research is related to information particular to the historical *operational performance* and *financial condition* of the subject *enterprise*, *asset*, or *service*, as well as, the *pertinent clinical related data*. Specific research is typically obtained from the client or the appropriate contact designated by the client.

©

In conducting the general and specific research required for the due diligence process, the analyst must develop an understanding of the market forces and the stakeholders that have the potential to drive healthcare markets. It is useful to examine what value relates to the four paramount market influences of the healthcare industry, i.e., the *Four Pillars of healthcare – reimbursement*, *regulatory*, *competition*, and *technology*.[8] These four elements of the healthcare industry marketplace shape the dynamic by which providers and enterprises operate within the current transactional environment, while also serving as a *conceptual framework* for analyzing the viability, efficiency, efficacy, and, ultimately, the value that may be attributed to property interests, whether *enterprises*, *assets*, or *services*.[9]

General research may be attained from a variety of sources, including:

(1) Books and monographs;
(2) Journals and periodicals;
(3) Government agencies;
(4) Proprietary data aggregators and portals;
(5) Professional societies and trade associations;
(6) Conferences and webinars;
(7) Online databases; and,
(8) Academic and industry "*think tanks*" and research foundations.[10]

While the process of obtaining *general research* provides the valuation analyst with an adequate grasp of the body of knowledge applicable to a particular property interest being appraised, it is the efficacy of the valuation analyst's subsequent application of generally accepted analytical methods to that data that determines the successful outcome of the assignment. The *technical tools* that the valuation analyst needs to employ to provide clients with the *observations, findings, conclusions*, and *opinions* that are to be deliverable under a particular engagement involves the *synthesis* of a substantial amount of *data* that may be pertinent to the valuation assignment, as well as the *appropriate analysis*, *calculations*, and *considerations* of the various types and forms of that data. Among the *technical tools* available to analysts is the *benchmarking* process, i.e., a comparison of *specific research data* from the subject property interest to *industry indicated normative benchmark data*, and may include the performance of a *simple variance analysis* on a single characteristic, such as a patient outcome metric related to "*readmission within 30 days of discharge*," or may be comprehensive in scope, including the comparison of numerous *clinical*, *operational*, and *financial metrics*.

Benchmarking is used to establish an understanding of the *operational and clinical performance* and *financial status* of a healthcare enterprise.[11] Benchmarking techniques can also be utilized to illustrate the degree to which an organization *diverges* from *comparable healthcare industry norms*, as well as, providing vital information regarding trends within the organization's *internal operational performance* and *financial status*.[12] For example, benchmarking in the healthcare services sector serves several purposes:

(1) Offers insight into the enterprise and practitioner performance as it relates to the rest of the market (e.g., allowing organizations to find where they "*rank*" among competitors, and as a means for continuous quality improvement);
(2) Objectively evaluates performance indicators on the enterprise and practitioner levels;
(3) Indicates variability, extreme outliers, and prospects;

©

(4) Identifies areas that require further attention and possible remediation (e.g., re-distributing resources and staff, and increasing operating room utilization);
(5) Promotes quality and efficiency improvement (e.g., improving average length of stay and other clinical efficiency measures); and,
(6) Provides enterprises with a value metric system to determine if they comply with legal standards for *fair market value* and *commercial reasonableness*.[13]

In contrast to *general research, specific research* is information and data that is directly related to, or obtained from, the *subject enterprise, asset*, or *service* being valued. Specific research will often be comprised primarily of those documents received by the valuation analyst through the *information and data gathering process* (or *discovery process* in the case of *litigation support engagements*) including, but not limited to, *preliminary legal/organizational* and *transactional documents*, so that any material compliance issues may be identified.[14] A sample of some of the *preliminary legal/organizational* and *transactional documents* requested in a healthcare transaction due diligence process are as follows:

(1) Legal/Organizational Documents:
  (a) Articles of Incorporation, Limited Liability Company (LLC) Formation Agreements, Partnership Certifications, Certificates of Trust;
  (b) Bylaws, Operating Agreements, Trust Agreements;
  (c) Shareholder Agreements, Member Agreements, Partnership Agreements;
  (d) Pertinent Executive Meeting Minutes;
  (e) Existing Employment Agreements and Curriculum Vitae for Key Personnel;
  (f) Real Property Lease Agreements;
  (g) Personal Property Lease Agreements;
  (h) Existing Buy-Sell Agreements;
  (i) Existing Consulting or Management Services Agreements;
  (j) Loan Agreements;
  (k) Related Party Vendor/Supplier Agreements; and,
  (l) Third Party Payor Agreements;
(2) Transactional Documents:
  (a) Asset Purchase Agreements;
  (b) Stock Purchase Agreements;
  (c) Bills of Sale;
  (d) Asset Contribution Agreements;
  (e) Buy-Sell Agreements;
  (f) Standstill Agreements;
  (g) Non-Disclosure & Confidentiality Agreements;
  (h) Letters of Intent;
  (i) Transaction Term Sheets;
  (j) Proposed Employment Agreements;
  (k) Proposed Lease Agreements; and,
  (l) Proposed Compensation Plan Details.

Upon the valuation analyst's review and analysis of the preliminary documents and information provided, a customized supplemental request for documents and information should be developed in consideration of the unique attributes and circumstances in that particular healthcare transaction, including, but not limited to, the items set forth in Table 1.

© HCC Health Capital Consultants

Table 1: Typical Supplemental Document and Information Request[15]

Supplemental Document Request
Financial statements (including Income and Expense Statements and Balance Sheets) for the last five full years, plus updates to most recent quarter, or month prior to the date of the valuation.
General ledger, of detailed transactions, for the twelve month period following the "as of" date.
Tax returns (including detailed attachments and supplemental information) for the last five full years.
Fee schedules for subject enterprise, current as of date of valuation, reflecting standard fee, medicare fee and other pre-negotiated fixed fee for service or managed care fees.
Aged schedule of accounts receivable with payor detail for the period ending of each of the last five years and as of the date of the valuation.
Accounts payable with creditor detail for the period ending of each of the last five years and as of the date of the valuation.
Detailed inventory of medical equipment and office equipment (including furniture and fixtures) in use in subject enterprise as of date of valuation, with date and cost of acquisition. Detailed depreciation schedules should be included from tax return or accountants' records to verify schedule.
Estimate of the number of days of each category of supplies on hand (categorize by medical supplies, lab supplies, and office supplies) as of date of valuation.
Count of active patient charts, which have experienced activity within the last 1-1/2 to 2 years prior to the date of valuation. Also, an estimate of the total patient charts with the subject enterprise as of date of valuation.
A CPT coded schedule of the number and type of major and minor procedures by payor, performed in the subject enterprise for each of the last five years and as of the most recent quarter, or month prior to the date of the valuation. Please provide this information by provider and site of service.
A list of physicians and providers in the subject enterprise as of the date of valuation, including their productivity at the subject enterprise for each of the last five years and as of the most recent quarter, or month prior to the date of the valuation (number of procedures, types of procedures, site(s) of service, charges, collections, etc.) and a Curriculum Vitae. Please also provide a list of former physicians and providers including the dates of service at the subject enterprise.
A description and list of referral sources (including productivity, i.e., number of procedures and charges) as of the date of valuation.
Copy of all agreements or proposals for past transactions involving the transfer of an equity or ownership interest in the subject enterprise, prior to the date of valuation.
Any prior valuation reports, investment banking or venture capital, or other financial analysis that have been performed related tothe subject enterprise since inception.
List of any insurance, Medicaid/Medicare, and/or third party payor audits that have been performed or are pending for the subject enterprise, with date and outcome.
Summary and description of privileges at Hospitals where staff privileges are held and scheduling arrangement.
Copy of Declaration Page (cover page) of malpractice insurance.
A list of all patents and intellectual property rights owned by the subject enterprise.
Patient location/zip code distribution report (sorted by location/zip code).
Copies of all managed care contracts in use in the subject enterprise (or a summary of duration, reimbursement scenarios, etc.).
A copy of the organizational chart for the subject enterprise.
Roster of staff (including non-M.D. providers), indicating the type of employment (i.e., W-2 or Independent Contractor status), salary, title, duties and years of service for the subject enterprise.
Copy of any practice protocols, operations manual, employee policies & procedures manuals in use for the subject enterprise.
Copies of all licenses, certifications, accreditations, permits, and other regulatory approvals including, if applicable, Certificates Of Need (CON).
Information on management information systems including all software for accounting, coding, billing, reporting, patient records, etc. with the name of the manufacturer, product, modules, options, etc., as well as the version, release, and update numbers.
Provide a summary and copies of documents related to any pending litigation in which the subject enterprise is presently involved.
Copy of any operating or capital budgets or forecasted statements prepared for the subject enterprise.
A description of the provider income distribution plan in place at the PRACTCIE, including any periodic calculations.
Addresses, office hours and physician and provider staffing for main office and satellite offices.
A description of all sites of services (fixed and/or mobile).
A description of the call/coverage rotation schedule (if applicable).
Marketing materials (e.g., brochures, description of commercials, web site, etc.).
Floor Plan or layout of each of the office locations.

©

Additional subject-specific information may also be obtained through the *site visit/management interview*. Some of the types of subject-specific information that may be collected during the *site visit/management interview* is listed below:

(1) History and Background Information;
(2) Premise/Location/Building Description;
(3) Transition to Electronic Medical Records;
(4) Quality of Staff and Depth of Management;
(5) Competitive Trend Analysis;
(6) Patient Base Trends;
(7) Managed Care Environment;
(8) Hospital Privileges and Facilities;
(9) Referral Sources and Patterns;
(10) Strength of Financial Management and Credit Collections Policy;
(11) Operational Efficiency Assessment; and,
(12) Future Plans, e.g., Growth, Transition to Value-Based Reimbursement.[16]

As part of the requisite due diligence associated with a specific engagement, the valuation analyst should conduct independent research, specific to the subject enterprise, to supplement any information provided by the subject entity, in line with the old Russian proverb, "*Trust but Verify*."[17] For example, the valuation analyst may conduct a *Uniform Commercial Code* (UCC) search to determine if the subject enterprise has any undisclosed outstanding liabilities or whether the subject enterprise leases, rather than owns, their tangible personal property, i.e., furniture, fixtures, and equipment. Similarly, a search for filings related to the subject enterprise with the Office of the Secretary of State in which the subject enterprise operates should be performed to identify pertinent information related to the actual legal organization of the subject enterprise, as well as, performing a brief search of online legal databases, such as *Public Access to Court Electronic Records*[18] for federal litigation, and state litigation databases (such as Case.net[19] in Missouri), to reveal any past and ongoing litigation involving the subject property interest, including shareholder disputes, commercial damages and liabilities, and malpractice cases. Further information related to the subject *enterprise*, *asset*, or *service*, which might not have been disclosed, may be gleaned from state licensing and certifying agencies and disciplinary boards, and may have an impact on the reputation, as well as the *clinical* and *operational performance* and *financial status*, of the subject enterprise.[20] It should be noted that *subsequent events*, i.e., events that would *not* have been *known or knowable* as of the *valuation date*, but which may also have a deleterious effect on the value indication for the subject property, must be disclosed, within the valuation report, to the client. However, these *subsequent events* do not have an impact on the valuation opinion, as of the valuation date, and may require a decision by the client as to whether an updated valuation report, i.e., with a valuation date after the *subsequent events*, should be undertaken.

The valuation analyst should also restate and adjust the subject enterprise *specific* financial data received to: (1) facilitate *industry benchmark comparisons* of the specific line item allocations of the subject entity's financial statements to comparable industry indicated benchmark norms for those line items; and, (2) reflect the *true economic operating performance* and *financial status* of the subject enterprise. Accordingly, the valuation analyst should carefully consider restating certain line items related to the revenue and expenses of the subject entity, e.g., owner compensation and benefits; discretionary expenses not required to support the projected revenue of the subject enterprise; and, extraordinary non-operating income and expenses. Likewise, the valuation analyst should consider restating certain of the assets and liabilities of the subject entity, e.g.,

© HCC Health Capital Consultants

remove non-operating assets; adjust tangible personal property (i.e., furniture, fixtures, and equipment) from book value to *economic fair market value*; and, removing those assets excluded from the property interest being appraised, such as accounts receivable and cash.

The next step in the due diligence process is to determine the extent and the probability of the continuity of the subject business's benefit stream and competitive advantage into the future. A valuation analyst who leads such a process must follow three credos to "*discover the truth*":

(1) "*Be Skeptical*" – Do not believe what you read or what people tell you, or at least be aware of the biased information you are receiving. Always seek corroborative evidence;
(2) "*D&D: Disclose and Disclaim*" – The due diligence process is, by its very nature, a documentation-intensive engagement. In addition to maintaining an organized filing system, it is important to disclose all findings, even those to be deemed immaterial; and,
(3) "*Follow the Scientific Method*" – Although there is an *art* to this work, a successful due diligence process uses the scientific method. In the world of due diligence, it truly can be stated that "*the product is the process.*" The successful valuation analyst will generate hypotheses, establish method(s), test hypotheses, report results, and develop conclusions in an orderly, documented, and replicable manner. In keeping with the philosophy of scientific research, due diligence must be objective in its approach and conduct.[21]

The *due diligence* process in a healthcare transaction project is a critical exercise for the valuation analyst. This is especially important in consideration of the *Four Pillars of Healthcare Valuation*, i.e., *reimbursement*, *regulatory*, *competition*, and *technology*, each of which Pillar will be discussed below.

Reimbursement

Healthcare reimbursement may be defined as the payment received by providers for the services that they render to patients, most of which reimbursement is received from third party payors, e.g., public (government) and private (commercial) payors.[22] The U.S. government is the largest payor of medical costs, primarily through the Medicare and Medicaid programs; this significant market share allows the U.S. government to exert a strong influence on the healthcare reimbursement environment.[23] In 2015, Medicare and Medicaid accounted for an estimated $646.2 billion and $545.1 billion in healthcare spending, respectively, combining for approximately 37% of all healthcare expenditures.[24] The prevalence of these public payors in the healthcare marketplace often results in their acting as a *price setter,* i.e., being used as a *benchmark for private reimbursement rates*.[25] The healthcare reimbursement environment is currently undergoing a paradigm shift, from reimbursement based on the *volume* of services provided, to reimbursement based on the *value* of services provided, which shift was recently manifested in the move away from the *sustainable growth rate* (SGR), and the passage of the *Medicare Access and CHIP Reauthorization Act of 2015* (MACRA). This volatility requires the analyst to conduct a thorough and robust due diligence exercise, as the reimbursement trends of the past may not hold true in the future.

In conducting the *general research* related to the subject interest being appraised, the analyst should first develop a knowledge base related to the healthcare reimbursement environment, obtain the data required to benchmark the reimbursement at issue in the engagement, and, based on that, reach an adequate understanding of the pertinent reimbursement trends in the marketplace, all of which will allow the analyst to develop

© HCC Health Capital Consultants

their observations, findings, conclusions, and opinion, and determine any necessary assumptions to be made regarding these future trends related to the subject property interest being appraised. As mentioned above, one of the principal valuation techniques for which the general research is used is *reimbursement benchmarking*.

In order to compare the reimbursement being received by the subject interest, the analyst may utilize industry normative benchmark survey data, depending on the type of reimbursement involved. For example, reimbursement rates may differ depending on whether: (1) the payor is public or private; (2) the services being provided is in an inpatient or outpatient setting; and/or, (3) the reimbursement at issue relates to the professional or technical component (i.e., whether it is payment for the work of the provider, or for the use of a facility). Upon an assessment of these factors, the analyst can then determine the type of reimbursement benchmark survey data that is most appropriate.

Some of the information that the analyst may want to determine in order to facilitate the benchmarking analysis may include, but not is limited to:

(1) Medicare payments in the base year;
(2) Medicare reimbursement rates on a specific date (of the project);
(3) Projected Medicare reimbursement for the next three to five years;
(4) Medicaid to Medicare fee index; and,
(5) Commercial insurance reimbursement rates.

The various sources of information (some of which sources are free and some of which are available for purchase) that may contain this information may include, but are not limited to:

(1) American Hospital Directory, which "*provides data and statistics about more than 7,000 hospitals nationwide… [and] includes both public and private sources such as Medicare claims data, hospital cost reports, and commercial licensors*";[26]
(2) GuideStar, which aggregates nonprofit reports and Internal Revenue Services (IRS) Form 990s for over 1.8 million non-profit organizations;[27]
(3) Medicare Cost Reports,[28] which contain various data points for a facility, such as "*facility characteristics, utilization data, [and] cost and charges by cost center*";[29]
(4) Physician Compare,[30] published by CMS, which allows the public to compare providers enrolled in Medicare across numerous data points, including utilization and payment data;
(5) Provider compensation and productivity survey data from associations such as:
    (a) *Medical Group Management Association* (MGMA);[31] and,
    (b) *American Medical Group Association* (AMGA);[32]
(6) The relevant Medicare Fee Schedule from CMS;[33]
(7) The state's workers' compensation fee schedule(s);
(8) The state's Medicaid fee schedule(s);
(9) Definitive Healthcare, which reports financial and clinical metrics (including net patient revenue, operating income, and average payment per claim by provider) for hospitals and healthcare providers;[34]
(10) FAIR Health, which aggregates information on medical claims (by CPT code) from a significant number of commercial insurers across the U.S.;[35] and,
(11) The Henry J. Kaiser Family Foundation, which provides the Medicaid to Medicare fee index (note that, the data is stratified by state, and by primary care, obstetric care, or other).[36]

©

The above information presents some of the data sources and means by which the analyst may perform the requisite analysis for comparing the subject reimbursement at issue to industry normative benchmarking data, and provides the context by which the current reimbursement environment can be contrasted with historic trends, to facilitate the analyst's assumptions and calculations necessary to predict future reimbursement.

The reimbursement data requested of, and obtained from, the Subject Entity should include both the charges and collections, as well as the amount actually received by the Subject Entity (i.e., the reimbursement). The *specific research* and documents to be requested from the Subject Entity may include, but are not limited to:

(1) An aged schedule of accounts receivable with payor detail for the pertinent period;
(2) Productivity reports (which reports should include admissions, payor mix, case mix, and revenue, by payor), such as incidence schedules by the appropriate reimbursement codes, for example:
    (a) *Relative Value Units* (RVU), for use in determining physician reimbursement;
    (b) *Current Procedural Terminology* (CPT) for physician procedures in both inpatient and outpatient settings;
    (c) *Diagnosis Related Groups* (DRG), for use in the hospital setting;
    (d) *Ambulatory Payment Classifications* (APCs), for use in the outpatient setting;
    (e) *Healthcare Common Procedure Coding System* (HCPCS), for classifying ancillary services and procedures;
    (f) *Resource Utilization Groups* (RUGs), for use in the skilled nursing home setting; and,
    (g) Covered lives, for use in relation to managed care companies; and,
(3) A list of any Medicare, Medicaid, and/or other third party payor audits that have been performed or are pending for the Subject Entity, including the audit date and the outcome of the audit.

Instead of requesting and obtaining the data piecemeal from the Subject Entity, the analyst may request that the client, or the appropriate contact designated by the client, provide a "*data dump*" from the provider's patient billing system, which will include most of the data required to analyze the reimbursement related to the Subject Entity. Most revenue cycle software packages, e.g., Epic Systems and Meditech, allow this data to be exported to a Microsoft Excel or a data delimited (e.g., .csv) file.

Note that, quite often, the valuation analyst will sign an agreement to be a Business Associate of the client for purposes of compliance with the *Health Insurance Portability and Accountability Act of 1996* (HIPAA).[37] Nonetheless, the analyst should request the Subject Entity that the information provided not include any *protected health information* (PHI), e.g., patient name, social security number, address, date of birth. The information may include the unique patient identification or medical record number, so long as it is not tied to PHI, and related to the information provided (e.g., productivity schedules).

The specific information received from the Subject Entity should then be utilized in conjunction with the general research conducted to assist in the development of growth rates and discount rates, in preparing revenue projections and other elements of the valuation analysis pertinent to the engagement.

The paradigm shift in the healthcare reimbursement environment is changing the scope and nature of due diligence requests going forward. The due diligence requests have necessarily expanded to include both trends in the Subject Entity's historical financial performance and financial condition, as well as, more recently, the quality metrics that influence reimbursement rates. The dynamic evolution of the reimbursement environment has already resulted (at least in part) in healthcare transactions becoming increasingly complex and subject to

© HCC Health Capital Consultants

emboldened regulatory review, requiring that the analyst seek and obtain robust general and specific research data in conducting a complete and thorough due diligence process (that will withstand scrutiny) related to the Subject Entity.

Regulatory

With the passage of the 2010 *Patient Protection and Affordable Care Act* (ACA), providers are facing even more extensive regulatory scrutiny, much of which attention is focused on the increasing number of rules and the strict prosecution of *fraud and abuse* violations.[38] Although significant efforts have been expended attempting to "*repeal and replace*" the ACA,[39] most recently with the *Texas v. U.S.* case,[40] the landmark legislation remains standing, and the sweeping nature of the ACA will continue to drive ongoing changes in the structure and financial operation of many healthcare provider enterprises, likely resulting in an even further increase in the pace of hospital/physician practice integration/transactional activities, as well as an increase in the number of U.S. physicians who are currently employed by hospitals.[41] These increases have, in the past, served as a catalyst for enhanced regulatory scrutiny from the OIG, IRS, and DOJ, through the development of such initiatives as the *Fraud Enforcement and Recovery Act* (*FERA*) and the *Healthcare Enforcement Action Team* (*HEAT*).

Among the valuation issues arising from these regulatory concerns are:

(1) The need to establish the very existence of *tangible* and *intangible* assets within a healthcare enterprise;
(2) The determination of whether (and under which circumstances) it is *legally permissible* for those assets to be acquired; and,
(3) The need to take care in the selection of the applicable *valuation methodologies, approaches, and techniques* related to establishing the *fair market value* of healthcare *enterprises*, *assets*, and *services*.[42]

This increased scrutiny of the healthcare industry, at both the federal and state level,[43] requires the analyst to conduct a thorough and robust due diligence exercise, due to the significant inherent risk in the industry.

In conducting the *general research* related to the Subject Entity, the analyst should first develop an understanding of the controlling laws and regulations pertinent to the engagement, which may change depending on factors such as the state in which the *enterprise*, *asset*, or *service* is located; whether the provider(s) receive(s) reimbursement from Medicare, Medicaid, or other government payors; and/or, whether any of the enterprise(s) involved in the engagement is tax exempt. In addition, the analyst should be conversant with federal fraud and abuse laws such as the *Stark Law* (Stark), the *Anti-Kickback Statute* (AKS), and the *False Claims Act* (FCA), that, in general, state that physician compensation, for example, cannot be tied to the *volume or value of referrals*,[44] and that a provider may not submit any requests for reimbursement to the government when the provider is materially noncompliant with the program regulations.[45] Some of the (publicly available) laws and regulations that the analyst may want to review, both to bolster their knowledge and determine the applicability and relevance of the regulations to the subject engagement, include, but are not limited to:

(1) Federal and state fraud and abuse laws;
(2) OIG advisory opinions,[46] special fraud alerts,[47] and work plans,[48] which set forth guidance related to the relevant fraud and abuse laws;
(3) Federal and state antitrust laws;

© HCC Health Capital Consultants

(4) The applicable provisions of current healthcare legislation, such as the ACA;
(5) Proposed U.S. healthcare reform legislation;
(6) Federal and state licensure, certification, and accreditation regulations;
(7) State *Certificate of Need* (CON) laws;
(8) State *Corporate Practice of Medicine* (CPOM) laws;[49]
(9) Relevant state case law; and,
(10) State provider taxes.

As part of the requisite due diligence in conducting *general research* related to proposed legislation, the analyst should consult government websites, such as *www.regulations.gov*, which includes information on proposed bills, as well as current legislation.[50] State laws should also be researched for any CPOM or CON issues, as these regulations may have a significant effect on the Subject Entity's competitive position, by acting as an entry barrier for new healthcare providers.[51] It is vital to the due diligence exercise that the analyst determines the pertinent current laws and proposed legislation that may have an impact upon the ultimate value of the healthcare *enterprise*, *asset*, or *service*.

Specific to the Subject Entity, the valuation analyst should search the website of the Office of the Secretary of State in which the Subject Entity operates to ensure that the enterprise is in good standing and that there are no liens against the subject interest. To conduct these searches, the analyst should visit: (1) the *Business Services* section of the Secretary of State website, and search the business to determine that the business entity is active and in good standing; and, (2) the UCC section of the Secretary of State website, to determine who (if anyone) has an interest in the personal property of the subject interest. The analyst should also consult federal legal databases to ascertain any past or pending litigation against the subject interest. Additionally, the analyst should conduct a search of national and regional news services related to the subject interest and related parties in order to gather further (and potentially pertinent) information.

In most cases, the valuation analyst will compile a preliminary documents and information request for the client, which *specific research* and documents may include, but are not limited to:

(1) Any documents (or drafts of documents) that set forth the terms of transaction, such as *physician employment agreements* (PEAs) and *professional service agreements* (PSAs), term sheets, and *asset purchase agreements*;
(2) Financial statements representing the financial operation and economic position of the subject entity for, at least, three annual periods ending on the valuation date. Fully audited financial statements are preferred, but so long as it is disclosed within the report, an accountant's compilation or management drafts of financial statements may also be relied upon;
(3) Copies of all licenses, certifications, accreditations, permits, and other regulatory approvals including, if applicable, CONs;
(4) The tax status of the entity;
(5) Tax returns for the entity;
(6) A summary and copies of documents related to any pending litigation in which the subject entity is currently involved;
(7) Membership structure of the entity, including relative membership percentages, of all individuals, entities, and physicians in the entity; and,
(8) Any business performance reports prepared by or for the enterprise related to regulatory position.

©

As this research is client and project specific, the documents and the information required may change, depending on the facts and circumstances of the engagement.

There has been a paradigm shift in the healthcare industry over the past several years, most notably manifested in the various provisions of the ACA, which has already resulted (at least in part) in healthcare transactions becoming increasingly complex and subject to emboldened regulatory review, requiring that the risk averse analyst obtain robust general and specific research data and information in order to conduct a complete and thorough due diligence process (that will withstand scrutiny) related to the Subject Entity.

Competition

Professor Michael Porter, MBA, PhD, of Harvard University,[52] the author of 19 books and over 125 published articles, is considered to be one of the world's leading authorities on competitive strategy and international competitiveness. In his book, "*On Competition*," Dr. Porter discusses the need to analyze the competitive environment within the framework of the "*Five Competitive Forces that Shape Strategy*," which asserts that all businesses operate within a competitive marketplace defined by an underlying structure comprised of the following five competitive forces:

(1) Threat of new market entrants;
(2) Bargaining power of suppliers;
(3) Threat of substitute products or services;
(4) Bargaining power of buyers; and,
(5) Rivalry among existing firms.[53]

Heated debate has persisted related to the potential benefits and costs of free market competition within the healthcare industry. While proponents of free market competition claim that competition can reduce costs, increase quality, improve efficiency, and provide an incentive to innovate,[54] opponents argue that there are unique differences between the healthcare provider and payor markets and the markets for other industry sectors; therefore, generally applied economic models cannot be adequately utilized to draw conclusions related to outcomes within the U.S. healthcare delivery system.[55]

The various regulations that govern competition in the U.S. healthcare industry also differentiate it from the other industries. For example, state CON programs are aimed at restraining healthcare facility costs and facilitating coordinated planning of new services and facility construction.[56] These CON laws act as barriers to entry in the healthcare industry, restraining competition.

In conducting the *general research* for the competitive analysis related to the Subject Entity, the analyst should:

(1) Develop a working knowledge related to the competitive environment in the Subject Entity's location;
(2) Obtain the data required to conduct a financial benchmarking study of the competitors in the geographic area proximate to the Subject Entity; and,
(3) Based on that data, reach a requisite understanding of the competition in the marketplace.

© HCC Health Capital Consultants

This process will allow the analyst to appropriately develop their observations, findings, conclusions, and opinion, and determine any necessary assumptions to be made regarding the appraisal of the subject property interest.

Some of the valuation techniques for which the general research is useful are: (1) financial ratio benchmarking; and, (2) a determination of the specific competitors in the market service area of the Subject Entity.

In order to compare the Subject Entity's financial performance to others in the industry, the analyst may utilize industry normative benchmarking survey data, as well as the financial data of publicly traded firms, depending on the type of subject interest being appraised.

To determine the competitors in the market service area of the Subject Entity,[57] the analyst may consider factors such as: geographic location; types of services provided; the size of the entity; the ownership structure of the entity; and, the socio-economic demography of the relevant market service area. Upon constructing a list of competitors, the analyst may collect information pertaining to these competitors, such as: financial information, size, services provided, and type of facility.

Information that can assist the analyst in collecting pertinent data related to market service area includes, but is not limited to:

(1) Federal and state government antitrust laws that are applicable to the Subject Entity;
(2) CON laws of the state(s) in which the Subject Entity is located;
(3) Benchmarks for patient population;
(4) Physician information;
(5) Profiles of competitors; and,
(6) Financial information of competitors.

The various sources of information (some of which sources are free, and some of which are available for purchase) that may contain this data include, but are not limited to:

(1) *American Hospital Directory* (AHD), which "*provides data and statistics about more than 7,000 hospitals nationwide… [and] includes both public and private sources such as Medicare claims data, hospital cost reports, and commercial licensors*";[58]
(2) *American Health Care Association* (AHCA), which provides "*cutting edge, comprehensive research and data concerning the long term and post-acute care sector*";[59]
(3) *United States Census Bureau*, American Fact Finder, which provides data, such as population, income, and the number and type of businesses in a state, county, city, town, or zip code level;[60]
(4) Specific websites of the state in which the subject interest is located (e.g., the Secretary of State website, state office of insurance regulation);
(5) U.S. *Securities and Exchange Commission* (SEC), *Electronic Data Gathering, Analysis, and Retrieval* System (EDGAR), company filings, which provides "*free access to more than 21 million filings*," which filings typically contain financial information and competitive market analysis;[61]
(6) The *Risk Management Association* (RMA) Annual Studies Financial Ratio Benchmarks (organized by NAICS code);[62]
(7) *Bizminer*, Multiple Year Industry Financial Report (organized by NAICS code);[63] and,
(8) *Microbilt Integra*, Multiple Year Industry Report (organized by specific NAICS code).[64]

©

The above materials present some of the data sources and means by which the analyst may gather information regarding the competitive environment in the healthcare industry, the laws and regulations governing it, and information about particular competitors, specific to the subject interest, to facilitate the analyst's assumptions and calculations necessary in developing a *fair market value* opinion.

The data requested of, and obtained from, the Subject Entity to determine the pertinent competitors should include information that may be used to define the market service area, as well as financial information, and strategies used by the subject interest to differentiate itself from its competitors. The *specific research* and documents to be requested from the Subject Entity may include, but are not limited to:

(1) Patient location zip code distribution report;
(2) Marketing plans and marketing materials;
(3) Any market service area analysis for the Subject Entity, including any documents and information which may address the origin (e.g., zip codes) of the subject interest's patients;
(4) Any utilization or demand forecast prepared by or for the Subject Entity;
(5) Strategic plans of the subject interest, including documents or information which relate to any increased expansion into new geographic areas or service lines; and,
(6) Copies of all licenses, certifications, accreditations, permits, and other regulatory approvals, including (if applicable) CONs.

As this research is client and project specific, the documents and the information required may change, depending on the facts and circumstances of the engagement.

Technology

Technology should be construed in its broadest sense when applied to the healthcare industry. Not only does is it include the tangible tools, pharmaceuticals, and software that providers use during the provision of clinical services, but technology can also refer to the management of patient records, as well as the procedures that constitute the standardized course of care.[65]

Medical technology should not be limited to the sophisticated machinery used by doctors to treat patients and map different parts of the body, but should also encompass the complex systems used to collect, maintain and analyze patient data and various other processes. The technologies represented by these processes help improve patient clinical outcomes (and help physicians treat patients more efficiently), as well as enable cost reduction without compromising the quality of care.

The healthcare industry is constantly changing with increased emphasis on advancements and utilization of new technologies. For instance, the revenue stream of an enterprise may be dependent upon a specific technology, new sources of competition may arise from the development of new and improved technologies that render the old methods obsolete. For example, the introduction of Nexium, "*The Purple Pill*," which revolutionized the treatment of bleeding ulcer patients, significantly reduced both the need for surgery and the length of hospital stays,[66] thereby diminishing patient demand for surgical services from gastroenterologists and permanently affected the *cottage industry* of ambulatory surgery centers that had flourished prior to the introduction of Nexium. In performing the requisite due diligence for a healthcare enterprise, an analyst should undertake research to identify any potential future advancement that may disrupt (or enhance) the revenue-generating capabilities of the Subject Entity.

© HCC Health Capital Consultants

The information that an analyst may want to gather to gain knowledge about current technological advancements and their effect on the healthcare industry may include, but is not limited to:

(1) Updates related to the *Health Information Technology for Economic and Clinical Health (HITECH) Act*;
(2) Developments in Information Systems and Technology as it relates to the healthcare industry, including but not limited to, diagnostic and therapeutic technology, and management information technology;
(3) Costs of implementing various systems; and,
(4) The type of technology prevalent in the area of expertise of the Subject Entity.

The various sources of information that may contain this data include, but is not limited to:

(1) Office of the National Coordinator for Health Information Technology, HHS;[67]
(2) Healthcare Information and Management Systems Society (HIMSS);[68]
(3) FutureScan: Healthcare trends and implications; an annual publication, published by the Society for Healthcare Strategy and Market Development of the American Hospital Association and the American College of Healthcare Executives, highlights key trends affecting U.S. healthcare organizations;[69] and,
(4) MedTech, which is an association of over 100 pharmaceutical, biotechnology and medical technology companies, their suppliers and service providers, and research universities, that facilitates learning, collaboration, and a sharing of knowledge.[70]

In addition, the *specific research* and documents to be requested from the Subject Entity may include, but are not limited to:

(1) Information on management information systems, including all software for accounting, coding, billing, reporting, patient records, etc., with the name of the manufacturer, product, modules, options, etc., as well as the version, release, and update numbers;
(2) A detailed inventory of owned and leased medical equipment and office equipment;
(3) The cost to build existing equipment or systems;
(4) A list of existing medical technology used by the subject interest; and,
(5) Capital budgets or forecasted statements prepared by the subject interest, listing the allocated capital expenditure for technological advancements.

As this research is client and project specific, the documents and the information required may change, depending on the facts and circumstances surrounding the engagement.

©

Conclusion

Obtaining and reviewing some *general research* items may be crucial before starting any project. While the *general research* process provides the valuation analyst with an adequate grasp of the body of knowledge applicable to a particular property interest being appraised, it is the efficacy of the valuation analyst's subsequent application of generally accepted accounting approaches and methods to that data that determines the successful outcome of the engagement.

In contrast to *general research*, *specific research* is information and data that is directly related to, or obtained from, the subject *enterprise*, *asset*, or *service* being valued. Additional subject-specific information may also be obtained through the site visit/management interview. In some situations, the analyst might find it difficult to obtain the requested information and documents. It is instrumental that the analyst be consistent and persistent in obtaining the relevant information and documents required to conduct the due diligence exercise within the valuation analysis. Some strategies to communicate with the client may include, but are not limited to, the following:

(1) Determine the pertinent contact from whom to obtain the information, e.g., the chief financial officer (CFO), vice president of finance, accountant, billing manager, and contact them directly;
(2) Arrange a phone call with the client, management or the designated contact, immediately after sending the document request, to review the list and answer any questions and discuss any potential problems with the availability or accessibility of said documents;
(3) Send updated copies of document requests to the client to remind them of the outstanding documents and information; and,
(4) In the event that the client encounters difficulty in procuring the requested documents, recommend alternative routes to obtain information or suggest substitute documents.

Clients often cannot provide the documents and information requested by the analyst, because the client does not possess the information in the format it has been requested. In the alternative to requesting and obtaining the data piecemeal from the Subject Entity, the analyst may request that the client (or the appropriate contact designated by the client), provide the analyst with a "*data dump*" from the software that stores the requested data, and convert the *data dump* into a usable format in which the analyst can sort/analyze the information. For example, a *data dump* may come from the patient billing system and may include (in the case of the Subject Entity being a hospital or a physician office) individual procedure data by: (1) Unique Transaction ID; (2) Current Procedural Terminology (CPT) Code; (4) Total Charges; (5) Total Collections; (6) Provider; (7) Site of Service; (8) Patient ID Number; (9) Patient Zip Code; (10) Payor Mix; and, (11) Referral Source. This information could further be used to analyze the reimbursement related to the Subject Entity.

Occasionally, the analyst may have to conduct independent research to construct the information or an adequate "*work around*," in the event that the client has no documentation of the requested information. For instance, as discussed above, the analyst may request from the client patient location zip code distribution report or any market service area analyses for the Subject Entity, including any documents and information which may address the origin (e.g., zip codes) of the Subject Entity's patients. This information is used to determine the market service area to be used for the valuation. Some clients will not have this information accessible and may not be able to provide it to the analyst. To conduct a successful competitor analysis without this information, the analyst can, in the alternative, equate the market service area of the Subject Entity with the

©

Metropolitan Statistical Area, county (or group of counties), or state, and find providers of similar services within the selected region. This process should be conducted with the cooperation of the management of the Subject Entity to insure that the selected geographical area conforms to the perceived footprint of the Subject Entity.

The due diligence process of a healthcare transaction is a critical exercise for the valuation analyst. There has been a paradigm shift in the healthcare industry over the past several years, most notably manifested in the various provisions of the ACA, as healthcare transactions are increasing in both size and complexity, resulting in emboldened efforts at regulatory review, requiring that the analyst seek and obtain robust general and specific research data and information in conducting a complete and thorough due diligence process (that will withstand scrutiny) related to the subject property interest being appraised. This due diligence process is especially important in consideration of the *Four Pillars of Healthcare Valuation*, i.e., *regulatory*, *reimbursement*, *competition*, and *technology*, which are unique areas of risk that shape the market forces within the U.S. healthcare industry, in the valuation of healthcare *enterprises*, *assets*, and *services*.

©

Endnotes

1 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Volume 1, Hoboken, NJ: John Wiley & Sons, 2014, p. 231-244; "The Adviser's Guide to Healthcare, Second Edition" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA & Todd A. Zigrang, MBA, MHA, FACHE, ASA, Volume 1, New York, NY: AICPA, 2015, p. 138.

2 "The Adviser's Guide to Healthcare, Second Edition" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA & Todd A. Zigrang, MBA, MHA, FACHE, ASA, Volume 2, New York, NY: AICPA, 2015, p. 144-146.

3 "Black's Law Dictionary" 5th Edition. West Publishing Company: 1979.

4 "Valuation for M&A: Business Value in Private Companies" By Chris M. Mellen and Frank C. Evans, Second Edition, Hoboken, NJ: John Wiley & Sons, 2010, p. 322-325.

5 "Business Valuation Resource Guide" By Stephen Bethel, Glendale, CA: Mattatal Press, 2003, p. 283.

6 Chapter 12: Research and Financial Benchmarking in the Healthcare Industry, By Robert James Cimasi, Todd A. Zigrang, and Anne P. Sharamitaro, in "Financial Management Strategies for Hospitals and Healthcare Organizations" David Marcinko, M.D., MBA, CMP and Prof. Hope Rachel Hetico, RN, MHA, CMP Ed., Boca Raton, FL: CRC Press, 2014, p. 300-306.

7 Chapter 12: Research and Financial Benchmarking in the Healthcare Industry, By Robert James Cimasi, Todd A. Zigrang, and Anne P. Sharamitaro, in "Financial Management Strategies for Hospitals and Healthcare Organizations" David Marcinko, M.D., MBA, CMP and Prof. Hope Rachel Hetico, RN, MHA, CMP Ed., Boca Raton, FL: CRC Press, 2014, p. 300.

8 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Vol. I, Hoboken, NJ: John Wiley & Sons, 2014, p. 1-2.

9 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Vol. I, Hoboken, NJ: John Wiley & Sons, 2014, p. 1-2.

10 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Vol. II, Hoboken, NJ: John Wiley & Sons, 2014, p. 241-242.

11 Chapter 12: Research and Financial Benchmarking in the Healthcare Industry, By Robert James Cimasi, Todd A. Zigrang, and Anne P. Sharamitaro, in "Financial Management Strategies for Hospitals and Healthcare Organizations" David Marcinko, M.D., MBA, CMP and Prof. Hope Rachel Hetico, RN, MHA, CMP Ed., Boca Raton, FL: CRC Press, 2014, p. 312.

12 "The Adviser's Guide to Healthcare, Second Edition" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA & Todd A. Zigrang, MBA, MHA, FACHE, ASA, Volume 2, New York, NY: AICPA, 2015, p. 56.

13 "The Joint Commission's Perspective" By Paul M. Schyve, MD, in "Measuring Clinical Care: A Guide for Physician Executives," by Stephen C. Schoenbaum, MD, MPH, the American College of Physician Executives, 1995, p. 57; "The Physician Compensation Plan As an Instrument of Cultural Change," Aspen Health Law and Compliance Center, in "Physician Compensation Arrangements," By Daniel K. Zismer, An Aspen Publication, 1999, p. 108-115; "Measuring Physician Work and Effort," in "Physician Compensation Plans: State-of-the-Art Strategies," by Bruce A. Johnson, JD, MPA and Deborah Walker Keegan, PhD, FACMPE, Medical Group Management Association, 2006, p. 110-111; "Financial and Clinical Benchmarking: The Strategic Use of Data" Healthcare Financial Management Association, HCIA, 1997, p. 76-77.

14 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Vol. II, Hoboken, NJ: John Wiley & Sons, 2014, p. 232.

15 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Vol. II, Hoboken, NJ: John Wiley & Sons, 2014, p. 244-246.

16 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Vol. II, Hoboken, NJ: John Wiley & Sons, 2014, p. 247.

17 Attributed to Vladimir Lenin and popularized by U.S. President Ronald Reagan. See President Reagan's "Remarks on Signing the Intermediate-Range Nuclear Forces Treaty" December 8, 1987, https://reaganlibrary.archives.gov/archives/speeches/1987/120887c.htm (Accessed 9/21/17).

18 "Public Access to Court Electronic Records" United States Courts, www.pacer.gov (Accessed 8/29/17).

19 "Missouri Case.net" Missouri Courts, https://www.courts.mo.gov/casenet/base/welcome.do (Accessed 8/29/17).

20 See "The Adviser's Guide to Healthcare, Second Edition" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA & Todd A. Zigrang, MBA, MHA, FACHE, ASA, Volume 2, New York, NY: AICPA, 2015, p. 60.

21 "A Rationale for Due Diligence for the Business Intermediary: By Robert James Cimasi, CBI, CBC, IBBA News, Fall 1998, p. 10.

22 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Volume 1, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 85.

23 "How the Government as a Payer Shapes the Health Care Marketplace" By Tevi D. Troy, American Health Policy Institute (AHPI), December 1, 2015, http://www.americanhealthpolicy.org/Content/documents/resources/Government_as_Payer_12012015.pdf (Accessed 8/14/2017), p. 1.

24 "National Health Expenditure Projections 2016-2025 - Tables" Center for Medicare and Medicaid Services, March 21, 2017, https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/nationalhealthaccountsprojected.html (Accessed 8/14/17), Table 3.

25 "Medicare's Role in Determining Prices Throughout the Health Care System: Mercatus Working Paper" By Roger Feldman et al., Mercatus Center, George Mason University, October 2015, http://mercatus.org/sites/default/files/Feldman-Medicare-Role-Prices-oct.pdf (Accessed 8/14/2017), p. 3-5.

26 American Hospital Directory, https://www.ahd.com/ (Accessed 10/26/17).

27 Note that, the majority of hospitals are tax-exempt organizations. GuideStar, http://www.guidestar.org/Home.aspx (Accessed 10/26/17).

28 Cost Report Data, https://www.costreportdata.com/index.php (Accessed 10/26/17).

29 "Cost Reports" Centers for Medicare & Medicaid Services, https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Cost-Reports/ (Accessed 10/26/17).

30 "Physician Compare" Medicare.gov, https://www.medicare.gov/physiciancompare/# (Accessed 10/26/17). Note that, the procedural codes reported are Healthcare Common Procedure Coding System (HCPCS). See, e.g., "Medicare Provider Utilization and Payment Data: Physician and Other Supplier PUF CY2015" data.cms.gov, https://data.cms.gov/Medicare-Physician-Supplier/Medicare-Provider-Utilization-and-Payment-Data-Phy/sk9b-znav (Accessed 10/26/17).

31 Provider compensation data from MGMA is provided through its online DataDive database. MGMA DataDive, Medical Group Management Association, https://www.mgma.com/industry-data/datadive-resources (Accessed 10/26/17).

32 "Benchmarking Surveys" American Medical Group Association, https://www.amga.org/wcm/PI/surveys_pi.aspx (Accessed 10/26/17).

33 "Fee Schedules – General Information" Centers for Medicare & Medicaid Services, https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/FeeScheduleGenInfo/index.html (Accessed 10/26/17).

34 "Financial & Clinical Metrics" Definitive Healthcare, https://www.definitivehc.com/financial-metrics (Accessed 10/27/17). Note that, Definitive Healthcare recently acquired Billian's HealthDATA, another type of healthcare information database. "Definitive Healthcare has acquired Billian's HealthDATA!" Definitive Healthcare, https://www.definitivehc.com/definitive-healthcare-has-acquired-billians-healthdata (Accessed 10/27/17).

© HCC Health Capital Consultants

35 FAIR Health, https://www.fairhealthconsumer.org/ (Accessed 10/27/17).
36 "Medicaid-to-Medicare Fee Index" The Henry J. Kaiser Family Foundation, http://www.kff.org/medicaid/state-indicator/medicaid-to-medicare-fee-index/ (Accessed 10/26/17).
37 HHS defines a business associate as "person or entity, other than a member of the workforce of a covered entity, who performs functions or activities on behalf of, or provides certain services to, a covered entity that involve access by the business associate to protected health information." "Business Associate Contracts" U.S. Department of Health & Human Services, https://www.hhs.gov/hipaa/for-professionals/covered-entities/sample-business-associate-agreement-provisions/index.html (Accessed 10/27/17).
38 "Patient Protection and Affordable Care Act" Public Law 111-148, 124 Stat 119 (March 23, 2010), as amended by "Health Care and Education Reconciliation Act" Public Law 111-152, 124 Stat 1029 (March 30, 2010).
39 For more information about the efforts to repeal and replace Obamacare, reference "Obamacare Repeal and Replace – In the Heat of the Night: Now You See it, Now You Don't" Health Capital Topics, Vol. 10, Issue 7, July 2017, https://www.healthcapital.com/hcc/newsletter/07_17/PDF/ACA.pdf (Accessed 11/20/17).
40 On December 14, 2018, the Texas District Court deemed the ACA to be unconstitutional in its entirety, but did not enjoin the law, likely so that the law would stay in force as the case worked its way through the appeals process. For more information, see "Judge Rules Entire ACA Unconstitutional" Health Capital Topics, Vol. 11, Issue 12, December 2018, https://www.healthcapital.com/hcc/newsletter/12_18/HTML/TEXAS/convert_hc_topics_tx_v_us_cite_chked_cataloged_12.20.18_hba.php (Accessed 4/11/19).
41 "Hospitals' Race to Employ Physicians – The Logic behind a Money-Losing Proposition" By Robert Kocher and Nikhil R. Sahni, New England Journal of Medicine, Vol. 364, No. 19 (May 12, 2011), p. 1790–1791.
42 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Volume 1, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 263.
43 "Laws Against Health Care Fraud Resource Guide" Centers for Medicare and Medicaid Services (September 2015), p. 1.
44 "Limitation on Certain Physician Referrals" 42 U.S.C. § 1395nn (2010); "Criminal Penalties for Acts Involving Federal Health Care Programs" 42 U.S.C. § 1320a-7b (2015).
45 "False Claims Act" 31 U.S.C. § 3729 (2009).
46 "Advisory Opinions" Office of Inspector General, U.S. Department of Health & Human Services, https://oig.hhs.gov/compliance/advisory-opinions/index.asp (Accessed 11/21/17).
47 "Special Fraud Alerts" Office of Inspector General, U.S. Department of Health & Human Services, https://oig.hhs.gov/compliance/alerts/index.asp (Accessed 11/21/17).
48 "Work Plan" Office of Inspector General, U.S. Department of Health & Human Services, https://oig.hhs.gov/reports-and-publications/workplan/index.asp (Accessed 11/21/17).
49 Almost all states have provisions against the Corporate Practice of Medicine (CPOM). Although the regulated content of CPOM provisions vary across states, these laws generally prohibit unlicensed individuals or corporations from engaging in the practice of medicine by employing licensed physicians. "Corporate Practice of Medicine Doctrine 50 State Survey Summary" By Mary H. Michal, J.D., et al., National Hospice and Palliative Care Organization, September 2006, https://www.nhpco.org/sites/default/files/public/palliativecare/corporate-practice-of-medicine-50-state-summary.pdf (Accessed 11/27/17), p. 2.
50 "General Information" Regulations.gov, https://www.regulations.gov/faqs (Accessed 11/10/17).
51 A useful source for tracking state legislation is the National Conference of State Legislatures, http://www.ncsl.org (Accessed 11/21/17).
52 Michael Porter is also the director of the Harvard business school's Institute for Strategy and Competitiveness.
53 "On Competition" By Michael E. Porter, Boston, MA: Harvard Business School Publishing, 2008, p. 4.
54 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Volume 1, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 465-466.
55 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Volume 1, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 466.
56 "CON-Certificate of Need State Laws" National Conference of State Legislatures, http://www.ncsl.org/research/health/con-certificate-of-need-state-laws.aspx#Program (Accessed 11/21/17).
57 The market service area may be determined based on the areas that the current and historical patients come from, or the analyst may use the metropolitan service area that the subject interest is situated in.
58 American Hospital Directory, https://www.ahd.com/ (Accessed 11/21/17).
59 "Research and Data" America Health Care Association, https://www.ahcancal.org/research_data/Pages/default.aspx (Accessed 11/27/17).
60 "American Fact Finder – Search" United States Census Bureau, https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (Accessed 11/27/17).
61 "EDGAR – Company Filings" U.S. Securities and Exchange Commission, https://www.sec.gov/edgar/searchedgar/companysearch.html (Accessed 11/21/17).
62 "2017-18 Annual Statement Studies: Financial Ratio Benchmarks" The Risk Management Association, https://www.rmahq.org/productdetail.aspx?productId=591948896 (Accessed 12/7/17).
63 For more information, see: "Industry Financial Profile Series" Bizminer, https://www.bizminer.com/products/analysis/industry/financial-ratios-profiles.php (Accessed 12/7/17).
64 For more information, see: "Integra 3-year and 5-year Industry Reports – Business critical benchmarking data from Integra" Microbilt, http://www.microbilt.com/product/integra-industry-reports (Accessed 12/7/17).
65 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Volume 1, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 531.
66 "Healthcare Valuation: The Financial Appraisal of Enterprises, Assets, and Services" By Robert James Cimasi, MHA, ASA, FRICS, MCBA, AVA, CM&AA, Volume 1, Hoboken, NJ: John Wiley & Sons, Inc., 2014, p. 496, 499.
67 "About ONC" HealthIt.Gov, Newsroom, https://www.healthit.gov/newsroom/about-onc (Accessed 2/19/18).
68 "HiMSS" Healthcare Information and Management Systems Society, 2018, http://www.himss.org/ (Accessed 1/4/18).
69 "FutureScan, Healthcare Trends and Implications, 2017-2022" Society for Healthcare Strategy and Market Development of the American Hospital Association and American College of Healthcare Executives, Health Administration Press, 2017, http://trustees.aha.org/envtrends/Futurescan%20PPT%20for%20Trustees.pdf (Accessed 2/19/18).
70 "About - MedTech" MedTech, https://www.medtech.org/about/ (Accessed 1/4/18).

©