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A prescription for better data

Improving clinical documentation programs

What's at stake?

A considerable amount of literature exists to guide hospitals on how to improve clinical documentation diagnosis specificity in order to capture accurate severity of illness (SOI), risk of mortality (ROM), and reimbursement.

The number of clinical documentation excellence (CDE) programs, also known as clinical documentation improvement (CDI), has seen an exponential increase. This significant growth has occurred since the Centers for Medicare and Medicaid Services (CMS) transitioned the US coding and reimbursement methodology from Diagnosis Related Grouping (CMS-DRG) to Medicare Severity Adjusted DRG (MS-DRG), effective October 1, 2007.[1] As a predecessor, CMS-DRGs were determined through assignment of principal diagnosis and principal procedure without addressing the severity of comorbid or secondary conditions that typically complicate patients' health status. In contrast, MS-DRGs are structured as a multi-tiered system to better identify the severity of illness for each principal diagnosis based on the presence of additional comorbid secondary diagnoses.

A considerable amount of literature exists to guide hospitals on how to improve clinical documentation diagnosis specificity in order to capture accurate severity of illness (SOI), risk of mortality (ROM), and reimbursement.[2] Existing evidence correlates the effectiveness of a CDE program with improved value of data, which is used for reimbursement and quality profiling of providers in acute care settings.[3,4] Furthermore, groundbreaking reimbursement models, such as value-based payment and pay for performance, are progressively focused on relative effectiveness, with emphasis on the quality of data derived from accurate clinical documentation.[5]

Advancing program maturity

CDE programs have traditionally focused on improving the accuracy of inpatient provider documentation to support MS-DRG assignment for appropriate reimbursement, patients' SOI, ROM, and observed-to-expected (O/E) mortality rates reported in public profiling. Accurate MS-DRG assignment correlates with reimbursement integrity, while SOI/ROM scores are linked to the quality status of a health care provider or facility. O/E mortality ratios compare the organization's actual patient mortality rate against what was expected for other patients with the same diagnoses and procedures.

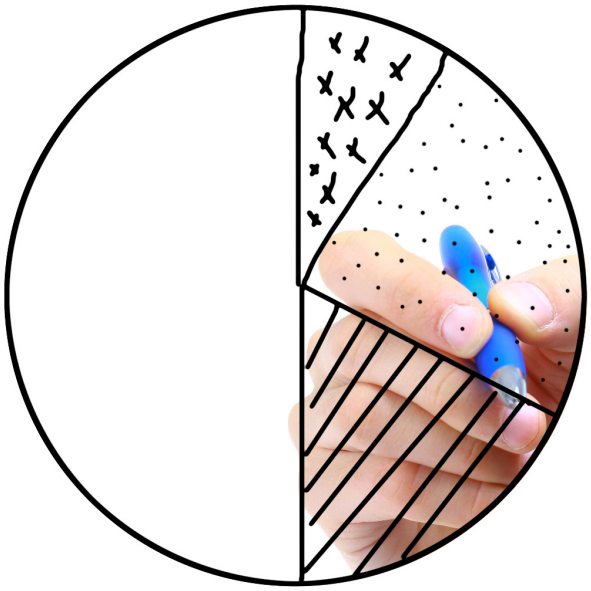
While it's correct for CDE programs to place emphasis on clinical documentation integrity, it's equally significant that CDE operations be well-organized with strong leadership, executive support, and physician engagement. As CDE programs proliferate, there's limited literature on how to advance the progression of CDE program maturity from "beginning" or "developing" stages to that of a "leading practice" level of maturity. As the value of CDE programs increasingly impact organizational success, it's vital that the mechanism for CDE operations be efficient and provide for continuous process improvement. At the same time, CDE programs should advance the quality, accuracy, and completeness of clinical documentation.

Current health care trends

The completeness of clinical documentation is becoming more crucial. This is true not just in the hospital inpatient setting, but also across the continuum of practice as patient care services become more integrated, spanning all levels of intensity across all care settings. The 2010 Patient Protection and Affordable Care Act (ACA) promotes the delivery of quality care through collaboration among providers, health plans, Accountable Care Organizations (ACO), pharmacies, patients, caregivers, and communities. The enactment of ACA created additional incentive for providers to shift their focus from fee-for-service to quality performance. The law required implementation of electronic health records (EHR) for secure electronic exchange of confidential health information. It also attached financial incentives to physician reimbursement based on the quality of care that they provided, with quality measured based on physician documentation of supportive clinical indicators, diagnosis specificity, treatment, and outcome criteria. Essentially, value-based payments translate to pay-for-performance. Higher reimbursement is awarded to physicians who provide a greater quality of care, with lower reimbursement allocated to those who provide lower quality of care.[6]

Another key trend is the expansion of CDE initiatives from inpatient hospital services to outpatient clinics, ambulatory surgery centers, medical group practices, and cardiac catheterization labs. In a 2013 report by MedPAC, inpatient discharges per beneficiary have steadily declined as outpatient visits per beneficiary are increasing.[7] This shift in volume from inpatient to outpatient services is another critical indicator for advancing CDE program maturity. Additionally, ACOs and the hospital industry are incorporating physician practices, clinics, ambulatory services, etc., as part of their outpatient services to lower the cost of care. Implementation of an outpatient CDE program with expansion of CDE influence to include hierarchical condition categories (HCCs) can help improve the documentation of secondary diagnoses that drive risk-adjustment scores for quality of care. HCCs in the outpatient arena are similar to MS-DRGs on the inpatient side: Conditions with similar cost patterns are grouped together and assigned a risk adjustment factor (RAF) to assess the beneficiary's health status and, ultimately, impact payment models and providers' future reimbursement for the subsequent year.

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) calls for "better care, smarter spending, and healthier people" through emphasis on value over quantity.[8,9] Data integrity is at the core of quality scores, value-based reimbursement, outpatient services, and denial management. The CDE specialist, possessing a combination of both clinical and coding knowledge, has the unique ability to assist providers with the translation of clinical terminology into language that can be coded to better capture accurate and precise documentation across inpatient and outpatient services. Consequently, leading CDE programs can play a valuable role in promoting efficient, effective provider documentation supported by critical thinking and key terminology. CDE programs that are well-structured and produce more accurate data in both inpatient and outpatient realms are poised to capture the data necessary to calculate incentives or reimbursements for value-based care models. Current health care trends are key drivers for achieving data integrity, making it essential for CDE programs to identify their present state of maturity and focus on initiatives to advance to the highest level of maturity.



Our take

Multiple factors contribute to CDE program inefficiencies, including resource constraints, education and training of CDE and coding staff, technology platforms and support, and—most important—corporate culture.

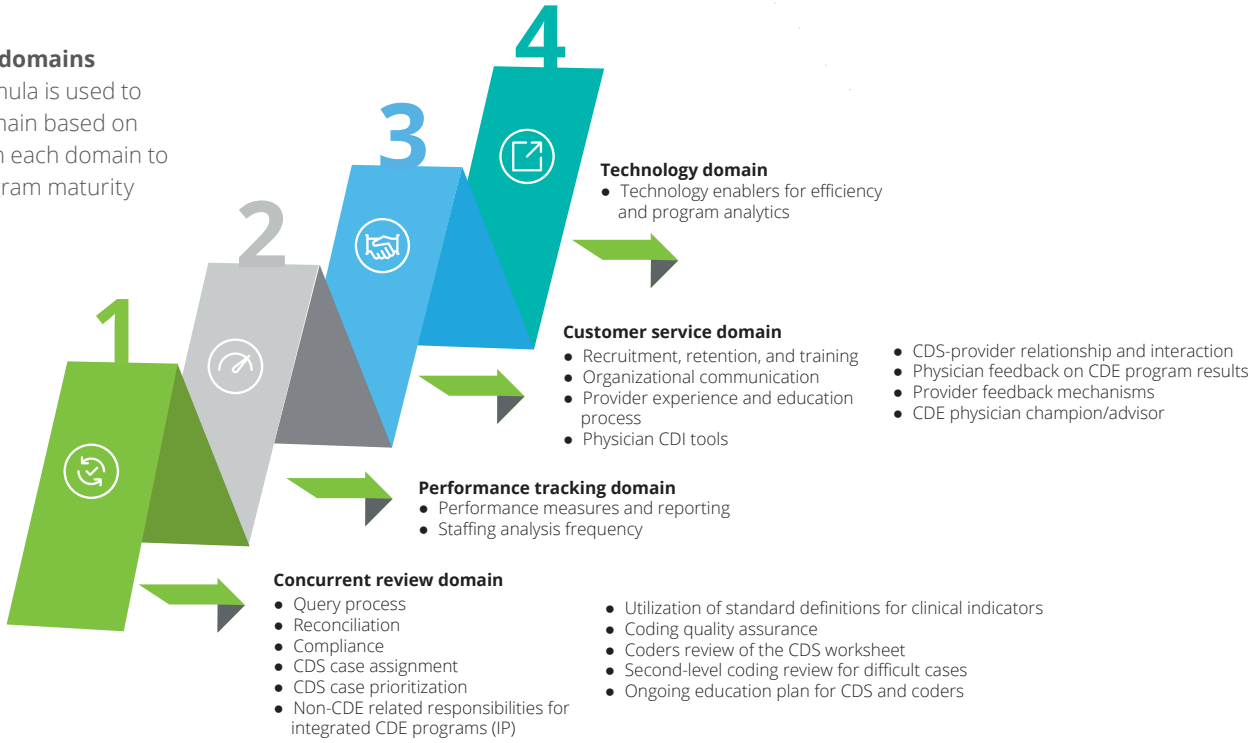
The maturity level of a CDE program determines its quality, efficiency, and effectiveness. Classification stages may range from "beginning" and "developing" to "defined," "advanced," and "leading" practices. Due to diversity in CDE models, staffing, and focus, CDE programs currently operate at different maturity levels with varying outcomes. These outcomes depend on the precise capture of principal diagnoses, procedures, and secondary diagnoses that, in combination, define the SOI and ROM data for each case. Additionally, CDE processes, policies, and procedures can vary from facility to facility, even within the same health system. Multiple factors contribute to CDE program inefficiencies, including resource constraints, education and training of CDE and coding staff, technology platforms and support, and—most important—corporate culture. The following table describes the evolutionary stages of the Deloitte CDE program maturity levels. It also provides insight into operationalizing a cutting-edge, more refined CDE program that meets the current demand for more precise data.

Deloitte CDE maturity model

The Deloitte CDE maturity model defines clinical documentation programs through a staging system.

Maturity stage	Definition
Beginning	CDE programs that are in the initial stages of developing their concurrent review process and procedure development and have only rudimentary performance indicators, minimal customer service expectations, and limited or no technology
Developing	Process and procedures are in place but aren't clearly defined or consistent and may not meet all goals
Defined	Clearly defined processes and procedures with established workflow and proficient staff that meet goals
Advanced	Aligned and predictable processes and procedures with well-qualified staff that meet or exceed goals
Leading	Proactive, collaborative, and adaptive processes and procedures that exceed goals

CDE maturity domains
A weighted formula is used to grade each domain based on the output from each domain to determine program maturity



Each stage in the maturity model consists of four primary domains:

- **Concurrent review**
- **Performance tracking**
- **Customer service**
- **Technology**

Each domain has related processes that further define the expected degree of implementation by the organization. Based on the number of processes met within each domain, a measure of the program's maturity level will be established. In order to realize the desired future state, an organization should consider conducting a fair assessment of its current level of maturity and work toward achieving the benchmarks that define a leading practice. A program can evolve through maturity levels at various paces depending on the resources invested at any given time. Some initial questions to consider when assessing CDE program maturity for each domain may include:

- ***What are our present-day concurrent review processes, policies, and procedures? What is the degree of adherence?***
- ***Are tracking and monitoring performed for the CDE program and individual(s)? How extensive is the tracking and monitoring?***
- ***What type of collaboration exists among all stakeholders, including providers and executive leadership?***
- ***How does existing technology currently restrict or enhance our program effectiveness?***

Concurrent review domain

An organization should carefully analyze the processes for concurrent review to determine the current level of maturity for the domain. A program that's in the beginning phase of the concurrent review domain typically won't have defined processes in place. In addition, its reviews don't focus on SOI, ROM, or risk-adjustment diagnoses variables used for value-based care reimbursement methodologies. Coding of DRGs normally occurs after discharge of the patient from the facility, and there may be an ad-hoc retrospective review of inpatient coding for providers that repeatedly have clinical/medical necessity denials.

To advance from beginning to leading practice within the concurrent review domain, organizations should analyze existing policies and procedures, describe or define how the program prioritizes cases for review, review assignment delegation methods, and determine whether effective performance metrics are in place.

The concurrent review domain should establish standard definitions or clinical indicators for commonly queried diagnoses and ensure that the staff [clinical documentation specialists (CDS)/coders] are using the same determinant criteria to query providers. Progression in the concurrent review maturity level includes compliance with coding guidelines for DRG assignments and adherence to guidance around how query processes are conducted.

Integration with coding, quality, or case management

The concurrent review domain should collaborate with other departments, such as coding, quality, risk management, and/or case management. Collaboration across the organization helps break down siloes, improves the communication between functions, demonstrates increased respect and understanding between departments, and contributes to a more robust concurrent CDE review process.

CDE programs may also consider integrating with other departments—such as case management with CDE, or quality with CDE—to increase collaboration. The integration process must consider key roles and functions for each department. To avoid dilution of distinct expectations and overlapping efforts, specific job expectations for the CDE program and integrated departments need to be clearly defined. Additional responsibilities that the CDE staff may have for conducting non-

Key metrics to establish for advancing program maturity include initial and follow-up review rates and query rates, together with provider response and agreement rates.

CDE related duties should be addressed. Ideally, the CDE program and integrated department(s) should function in a complementary manner to bring about win/win outcomes for the organization.

Second-level review

It's important to develop an internal quality review process, such as a second-level review of targeted cases, to safeguard the quality of CDE reviews and the accuracy of MS-DRG assignments. Second-level reviews of concurrent cases by the CDE manager, coding supervisor, or skilled CDS can provide real-time feedback and opportunities for the CDS to seek further provider clarification while the patient is still hospitalized. Implementation of this process requires a higher level of CDS knowledge and experience and contributes toward the increasing maturity of the CDE program.

Reconciliation

To further promote quality and compliance with coded data, DRG reconciliation following patient discharge (ideally, before the bill-drop) can enable CDE and coding staff to resolve differences in the CDS MS-DRG assignment and the final coded DRG. The goal of this process is to identify any discrepancies in the capture of comorbid conditions and DRG assignment and proactively manage that discrepancy prior to issuing the patient bill.

Additional factors that contribute to the concurrent review domain are ongoing education and timely feedback methodologies for CDSs and coders based on the reconciliation process. Continual staff improvement and adherence to the core processes establish whether the concurrent review domain maturity is at the "beginning," "developing," "defined," "advanced," or "leading" level.

Performance tracking domain

The performance tracking domain examines performance measurement and reporting with the frequency of staffing analysis.

Performance measurement and reporting

CDE programs in the beginning maturity stage won't have defined performance measures or metric expectations pertaining to initial and follow-up review rates, query rates, provider response rates, case mix index (CMI), SOI, or expected versus actual ROM. Alternatively, programs that have established performance metrics but don't apply those metrics in decision making to enhance the CDE program will fall into the beginning stage of maturity.

Key metrics to establish for advancing program maturity include initial and follow-up review rates and query rates, together with provider response and agreement rates. Linkage of established metrics to CDE staff and provider accountability may expedite advancement of the program's maturity level.

In order for a CDE program to be considered leading practice in the performance measurement and reporting process, metrics must be well-defined, communicated, aligned to strategic goals, and fully integrated with performance evaluation. There should be regular and formal reviews of policies, procedures, and internal controls to validate the metrics collection process and results. A leading CDE program proactively uses innovative tools and technologies and has defined processes for measuring clinical provider education opportunities, reviewer competencies, and coder compliance. Leading programs have processes for proactively addressing and monitoring clinical denials and will trend and benchmark results for clinical documentation improvement and enforcement of ongoing training.

Staffing analysis

Staffing analytics and its relationship with other domains play a role in determining a program's maturity and the efficacy of the program as a whole. Staffing analytics of a CDE program in the beginning stage is ad hoc or missing altogether. As maturity progresses, a developing program adjusts staffing occasionally based on some event within the CDE program. Defined or advanced programs perform an annual reassessment of their staffing models and adjust staffing based on productivity, volume, length of stay, or time spent on cases, as well as plans for shifts in general workload based on planned CDE initiatives. Leading CDE programs also anticipate the impact on staffing due to regulatory changes and adjust overall process and program redesign accordingly.

The CDS–provider relationship and interactions should be examined to determine how well CDS staff collaborates with providers in the process of CDE.

Customer service domain

The key customers of a CDE program include providers and organizational leadership. So the focus of the customer service domain is to provide mechanisms that enhance customer experience.

CDE recruitment, retention, and training

CDE recruitment, retention, and training take into account CDS staff selection, education, and the availability of a progressive career path. Beginning or developing programs often don't have consistent processes for assessing clinical or interpersonal skills of applicants. Therefore, post-hire, the new CDS receives minimal training regarding policy, procedure, and customer service.

In contrast, leading CDE programs have well-defined processes for selecting qualified staff based on an objective candidate assessment tool. Upon hiring, they provide formal training and reinforce that training throughout the first year of employment, mentor staff through transitions, and deliver annual and ongoing job-related training as needed.

Organizational communication

Organizational communication is a central element for the effectiveness of a CDE program. Buy-in of the CDE program goals and initiatives by executive medical and organizational leadership, such as the chief medical officer (CMO), vice president of medical affairs (VPMA), the chief finance officer (CFO), or the chief quality officer (CQO), are key drivers for the vision of the program and the administrative support required for success. Beginning programs have no formal communication plan regarding clinical documentation requirements. Consequently, they may or may not perform retrospective coding queries for accurate provider documentation. CDE programs in the developing stage often publish standards with respect to use of abbreviations and conduct occasional communication regarding clinical documentation requirements via meetings, memos, or articles. A program with leading organizational communication practices implements a communication plan that's updated on an ongoing basis, guided by the vision of executive leadership, and creates an atmosphere conducive to open communication across all lines.

Provider experience and education

An effective provider experience is often driven by the quality of education and training received by providers related to the CDE program and query processes. Many programs in the beginning maturity level don't establish expectations for provider engagement, and providers often don't understand the value of complete and accurate clinical documentation. Leading CDE practices are composed of actively engaged providers and offer iterative feedback for performance improvement. Leading CDE programs have automated systems and education tracking in place that anticipate future provider educational needs and proactively suggest training programs. Leading CDE practices continuously educate providers (monthly, quarterly, and annually) during large group meetings, in specialty department meetings, through individual feedback, during team rounding, and via resident orientation/rotations.

Provider CDE tools

It's also important to analyze the types of CDE tools and resources directly available to assist providers with capturing documentation specificity. Most beginning programs don't have provider CDE tools, such as clinical documentation "pocket" cards, CDE newsletters, training presentations, or online physician collaboration portals. Leading practices in this area usually provide a basic toolkit for physician and resident orientation,

with updates and frequently asked questions distributed on a monthly basis. Leading CDE programs also generate clinical documental education alerts, queries, reminders, and the latest news electronically and via hard copy for providers. Other electronic tools may consist of applications that proactively engage physicians by way of smartphone and other applicable technology that interface provider documentation with key hospital systems.

CDS–provider relationship and interactions

The CDS–provider relationship and interactions should be examined to determine how well CDS staff collaborates with providers in the process of CDE. A program at the beginning level of maturity typically has minimal direct communication with providers. By the time a program reaches the leading practice level, it has progressed from providers with limited awareness of the program and no or limited communication with CDSs to a program where providers work directly with the CDS for complete and accurate clinical documentation prior to the patient's discharge. Another indication of a mature leading practice is routine CDS-provider interaction with a communication style that has transitioned from a unidirectional information flow (at the beginning maturity level) to a consultative, trusting, and advisory relationship.

Provider feedback on CDE program results

Delivering provider feedback regarding CDE program results and individual provider score cards with ROM, SOI, and CMI, and then using that process for iterative performance improvement, characterizes the maturity of an advanced CDE program. Programs at the beginning maturity level rarely can provide this type of feedback, nor can they fully integrate results for performance improvement initiatives. As the program matures, feedback may be provided as needed or only when there is a problem. In some instances, providers receive general CDE results in a summary format without any individual performance feedback. Leading practices, however, provide both individualized and general feedback regarding the CDE performance on a monthly, quarterly, and annual basis. Provider feedback is regularly solicited to adjust the program's course.

CDE provider feedback mechanisms

The CDE-provider feedback mechanisms analyze CDE queries and share those results with providers. Beginning programs often have no mechanism for giving query feedback to providers. Advanced or leading practices will routinely analyze query statistics to identify the many common query types, measure provider query response rates, examine agreement rates and preferred query communication methods. The feedback is utilized in an iterative method to improve current processes and refine queries. It's also used for educational purposes. Leading practices employ a feedback system that's consistently re-evaluated for applicability and serves as the basis for internal audits and ongoing education and training.

CDE physician champion/advisor

A CDE physician champion/advisor is one of the most important elements of an effective CDE program. Programs without a physician champion/advisor are assigned to the beginning level of maturity. The more Advanced CDE practices are represented by a physician champion/advisor who is actively engaged in daily CDE activities, including the query escalation process and routine delivery of ongoing education to providers, CDSs, and coders. The physician champion/advisor in a leading program constantly engages colleagues to improve clinical documentation integrity and provides ongoing guidance to the coding and CDS team. Additionally, leading practices typically appoint service-line champions for medical/hospitalist, surgical, orthopedic, critical care, or other key specialty services.

Technology domain

The CDE technology domain supports the concurrent review and retrospective reconciliation processes. The type of tool available to a CDE program can have significant impact on the productivity and efficiency of the program. This domain determines how technology restricts or enhances program effectiveness through analysis of existing technological capabilities and comparison to current technology systems on the market. The technology domain is considered to be in the beginning phase when a CDE program has no tools or the existing tools/systems are inadequate to support the concurrent review and reconciliation processes. Beginning programs also have technology systems that are often disparate and don't communicate appropriately with other CDE concurrent review systems, such as electronic health records. Leading technology practices include natural language processing that's used during documentation, concurrent review, and coding to promote accurate and complete clinical documentation. As a program advances in maturity, technology is optimized to support processes, communication, performance measurements, and training with enterprise-wide system integration.

Forging ahead

The current shift to value-based care places greater implication on accurate health care data and reduction in compliance risks. CDE programs that are structured to be effective and efficient can provide the solutions needed to achieve accurate clinical documentation that contributes to precise health care data that's required for value-based payment methodologies. Once an organization has pre-determined its maturity level, there are a number of steps that can be implemented to support future state goals and continuous improvement for the ultimate achievement of a leading CDE program. While some steps may vary based on the organization, the following steps should be standard:

- Goal setting
- Gap analysis
- Stakeholder identification
- Technology assessment/improvement

Goal setting

Multiple factors play a role in establishing the direction and number of goals for any CDE program. But in order to appropriately set goals prior to a gap analysis, benchmarking and research is essential. Several organizations, including American Health Information Management Association (AHIMA) and Association of Clinical Documentation Improvement Specialists (ACDIS), provide a foundation for organizations to establish new CDE program or improve existing programs. It's important to prioritize goals based on the CDE program's current state and the degree of effort necessary to reach the desired maturity level. Sorting through extraneous goals (nice to have) and determining necessary goals (need to have) is essential to overall success. Once goals are determined, a robust gap analysis should be performed to identify key steps that will advance the program from its current state of maturity to the desired future state.

Gap analysis

Understanding the gaps in your organization's CDE program allows for a more targeted approach to the desired future state. The timeframe for a CDE program gap assessment will vary depending on the depth of analysis. The gap assessment aids in the determination of a program's maturity, but it should also be leveraged to support optimization of people, processes, and technology within the CDE landscape. Identification of the top problem areas and key stakeholders of the CDE program guides prospects in achieving the desired future state of maturity.

Stakeholder identification

Stakeholder engagement is fundamental to a CDE program's overall effectiveness and maturity. Identifying and classifying the key stakeholders and the roles they play will support delineation of tasks that are essential to program advancement. Classification of stakeholders as vital, primary, and supportive facilitates appropriate task allocation among multiple stakeholders.

Vital stakeholders include executive leadership, key physician leaders, revenue cycle, health information management (HIM), coding, and CDE leadership. Vital stakeholder engagement contributes to how advanced a program becomes to the overall continuous improvement process. Vital stakeholders have ownership and accountability, provide advocacy, support communication, and develop overall strategies based on organizational vision and goals.

Primary stakeholders will consist of physician champions; mid-level HIM and CDE management; and CDE, coding, and risk management staff. Once recognized, these stakeholders will be responsible for the day-to-day tasks, roles, and functions identified during initial and ongoing assessments. Primary stakeholders also

Understanding the gaps in your organization's CDE program allows for a more targeted approach to the desired future state.

provide valuable insight that may be leveraged to advance a program's maturity level. The primary stakeholders will report upward to the vital stakeholders regarding progress, gaps, and challenges. Identification of supportive stakeholders is contingent upon the size of an organization. Organizations with an integrated departmental approach may find it easier to designate supportive stakeholders, while those with a segregated methodology may find it more challenging. Examples of supportive stakeholders include information technology, case management, risk management, and quality management resources (i.e., management, subject matter experts). The commitment level of supportive stakeholders varies dependent upon the needs of an organization. In many cases, this type of stakeholder will offer buy-in for technological advances, program modifications, and integrated approaches that will benefit the total organization.

Technology assessment/ improvement

As technology advances, so does the potential for advancing new and existing CDE programs to desired maturity levels. Technology goals for any CDE program should reduce administrative and manual tasks. Ideally there should be interoperability, automation, up-to-date embedded references, templates, and communication modalities, including alerts, as well as single sign-on and ease of use. Once technology needs are identified, vital and primary stakeholders will be key contributors to determining how to go about filling the voids and/or obtaining proposals to effectively manage gaps. It's important to maintain realistic expectations for technology within the CDE space. While technology has advantages, such as natural language processing, the interactional human element shouldn't be abated.

Organizational goals, gap analysis, stakeholder identification, and technology improvement should be based on the most optimal way to support processes, communication, and performance within an organization with consideration of budget and other constraints. In many cases, not all needs will be met and a level of ingenuity among the primary stakeholders will be ideal to continue advancing the program to the desired state. The path forward will be a continual process that incorporates and modifies steps according to the level of anticipated maturity level for the organization.

Bottom line

Deloitte's CDE solutions and maturity model help clients formulate future-state goals and develop a road map for improving their clinical documentation programs.

This article outlines timely and relevant strategies for health care leaders to consider for improving the integrity of health care data as trends in reimbursement shift from volume to value-based. Complete and accurate health care documentation leads to quality health care data, which is vital for capturing the appropriate indicators used for hospital and provider profiling and reimbursement. CDE programs with clear-cut goals and focus can be a catalyst for continuous program improvement initiatives.

Determining an organization's CDE program maturity level begins with a full understanding of the current state measured against the desired future state. Establishing maturity levels and defining categories for each level may aid in developing a blueprint for success. Many organizations address strategies for developing a CDE program. But once a program is established, strategies for attaining higher maturity levels should become the next approach toward the realization of a leading program.

Leading CDE programs take into consideration the quality of people resources, the availability of important policies and procedures that guide departmental processes, and forums for continuous improvement, while incorporating emergent technologies to improve effectiveness and efficiency. Leading practice CDE programs can become platforms to promote the advancement of CDE into the outpatient arena. They're an important consideration for further exploration as organizations attempt to meet demands for accurate clinical documentation to support value-based reimbursement methodologies in health care.

How Deloitte can help

Deloitte's CDE solutions and maturity model help clients formulate future-state goals and develop a road map for improving their clinical documentation programs. From goal setting and gap analysis to stakeholder identification and technology assessments and improvements, we tailor our services to our clients' needs—and always with an eye to bringing the human element to the forefront of any solution.

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Table of acronyms and definitions

Acronym	Definition
ACA	Patient Protection and Affordable Care Act of 2010
ACO	Accountable care organization
CDE	Clinical documentation excellence
CDI	Clinical documentation improvement
CDS	Clinical documentation specialist
CHIP	Children's Health Insurance Program
CMI	Case mix index
CMS-DRG	Centers for Medicare & Medicaid Services Diagnosis Related Groupings
DRG	Diagnosis-related groupings
EHR	Electronic health records
HCC	Hierarchal condition category
MACRA	Medicare Access & CHIP Reauthorization Act of 2015
MS-DRG	Medicare Severity Adjusted Diagnosis Related Groupings
O/E	Observed/expected
RAF	Risk adjustment factor
ROM	Risk of mortality
SOI	Severity of illness

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