

**A Trusted, Experienced Resource for Healthcare Provider Organizations**

HIMSS Analytics supports improved decision making for healthcare delivery organizations, as well as healthcare IT companies, state governments, financial companies, pharmaceutical companies, and consulting firms, by delivering high quality data and analytical expertise. The company collects and analyzes healthcare data related to IT processes and environments, products, IS department composition and costs, IS department management metrics, healthcare trends and purchase-related decisions. It is a wholly owned not-for-profit subsidiary of the Healthcare Information and Management Systems Society (HIMSS).

**A New Hospital EMR Adoption Assessment Tool**

HIMSS Analytics has developed a methodology to automatically score the 4000+ hospitals in the HIMSS Analytics Database (derived from the Dorenfest IHDS+ Database™) on their level of EMR implementation. HIMSS Analytics' EMR Adoption Model identifies and scores a healthcare provider's EMR capabilities, ranging from limited ancillary department systems to a fully paperless EMR environment.

**EMR Adoption Model**

| Stage   | Cumulative Capabilities   | % of Hospitals |
|---------|---|----------------|
| Stage 7 | Medical record fully electronic; CDO able to contribute to ICEHR as byproduct of SEHR         | 0.0%           |
| Stage 6 | Physician documentation (structured templates), full CDSS (variance & compliance), full PACS  | 0.1%           |
| Stage 5 | Closed loop medication administration   | 0.5%           |
| Stage 4 | CPOE, CDSS (clinical protocols)   | 3.0%           |
| Stage 3 | Clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology | 18.0%          |
| Stage 2 | CDR, CMV, CDSS inference engine, may have Document Imaging                                    | 38.8%          |
| Stage 1 | Ancillaries – Lab, Rad, Pharmacy  | 18.9%          |
| Stage 0 | All three Ancillaries not installed   | 20.7%          |

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### EMR Adoption Model Structure Ensures Objectivity

- All application capabilities within each stage must be operational before that stage can be achieved.
- All lower stages must have been achieved before a higher level will be considered as achieved.
- A hospital can achieve Stages 3-6 if it has met all of the application requirements for a single patient care service (e.g. single nursing floor, cardiology service).
- Using the rules above, additional points are given for the implementation of applications in stages higher than the one fully achieved by the healthcare organization.. In this fashion, other implementation paths than those prescribed by the stages can be taken into consideration for correlation with quality and financial research.

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| Stage | Description   |
|-------|---|
| 0     | <ul style="list-style-type: none"> <li>• Some clinical automation may exist.</li> <li>• Laboratory and/or pharmacy and/or radiology not installed.</li> </ul>   |
| 1     | <ul style="list-style-type: none"> <li>• All three major ancillaries (laboratory, pharmacy and radiology) installed.</li> </ul>   |
| 2     | <ul style="list-style-type: none"> <li>• Major ancillary clinical systems feed data to clinical data repository (CDR) that provides physician access for retrieving and reviewing results.</li> <li>• CDR contains a controlled medical vocabulary (CMV) and the clinical decision support system and rules engine for rudimentary conflict checking.</li> <li>• <i>Optional for extra points</i> - Information from document imaging systems may be linked to the CDR.</li> </ul>  |
| 3     | <ul style="list-style-type: none"> <li>• Clinical documentation installed (e.g. vital signs, flow sheets, nursing notes, care plan charting, and/or the electronic medication administration record (eMAR) system are scored with extra points and are implemented and integrated with the CDR for at least one service in the hospital.</li> <li>• First level of clinician decision support is implemented to conduct error checking with order entry (i.e. drug/drug, drug/food, drug/lab, conflict checking normally found in the pharmacy).</li> <li>• Some level of medical image access from picture archive and communication systems (PACS) is available for access by physicians via the organization's intranet or other secure networks.</li> </ul> |
| 4     | <ul style="list-style-type: none"> <li>• Computerized practitioner/physician order entry (CPOE) for use by any clinician added to nursing and CDR environment.</li> <li>• Second-level of clinical decision support related to evidence-based medicine protocols implemented.</li> <li>• If one patient service area has implemented CPOE and completed previous stages, this stage has been achieved.</li> </ul>   |
| 5     | <ul style="list-style-type: none"> <li>• The closed loop medication administration environment is fully implemented in at least one patient care service area. The eMAR and bar coding or other auto-identification technology, such as radio frequency identification (RFID), are implemented and integrated with CPOE and pharmacy to maximize point-of-care patient safety processes for medication administration.</li> </ul>   |
| 6     | <ul style="list-style-type: none"> <li>• Full physician documentation/charting (structured templates) are implemented for at least one patient care service area.</li> <li>• A full complement of radiology PACS systems is implemented (i.e. all images, both digital and film-based, are available to physicians via an intranet or other secure network.</li> </ul>  |
| 7     | <ul style="list-style-type: none"> <li>• Clinical information can be readily shared via electronic transactions or exchange of electronic records with all entities within a regional health network (i.e., other hospitals, ambulatory clinics, sub-acute environments, employers, payers and patients).</li> </ul>  |