

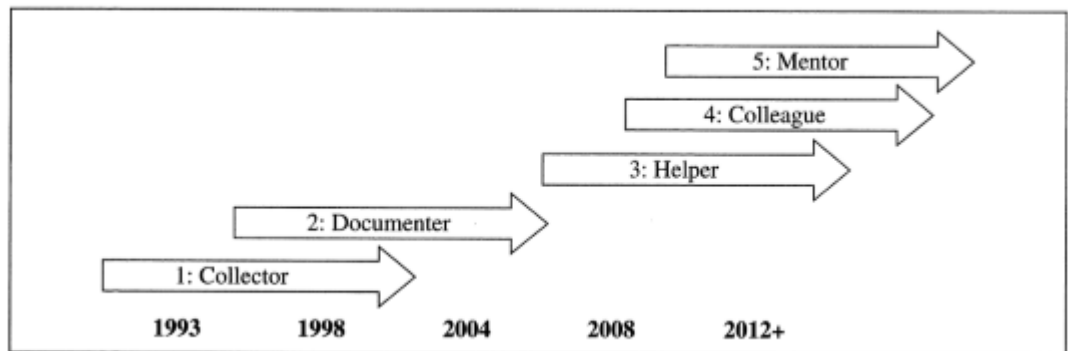
# MODEL JALUR MIGRASI MENUJU RKE

## Deskripsi:

Beberapa organisasi menyediakan model yang menjelaskan jalur generik migrasi menuju RKE. Tahapan ini dilalui organisasi pelayanan untuk mencapai RKE yang komprehensif. Model tersebut yaitu: Gartner EHR Generation Criteria, HIMSS Analytics, dan Incentives for M.U of HER.

### 1. Gartner EHR Generation Criteria,

Figure 6.1. Gartner EHR Generation Criteria



Source: Compiled from information described in Handler and Hieb 2007.

### 2. HIMSS Analytics,

- Stage 0: Not all three key ancillary systems (that is, laboratory, pharmacy, radiology) are installed.
- Stage 1: All three key ancillary systems are installed.
- Stage 2: Major ancillary clinical systems feed data to a central data repository (CDR) that provides access for retrieving and viewing results. The repository contains a controlled medical vocabulary and clinical decision support (CDS)/rules engine for rudimentary conflict checking. Information from document imaging systems may be linked to the CDR. The hospital has the capability of performing HIE with other patient care stakeholders.
- Stage 3: Nursing/clinical documentation is used. The first level of CDS is implemented to conduct error checking with order entry. Some level of medical image access from picture archival and communication systems (PACS) is available outside of the radiology department.

- Stage 4: Computerized practitioner order entry (CPOE) has been added to at least one patient service area, and a second level of CDS related to evidence-based medicine protocols is used.
- Stage 5: Closed-loop medication administration (bar code electronic medication administration record [BC-MAR]) is fully implemented and integrated with CPOE and the pharmacy information system.
- Stage 6: Full physician documentation/charting using structured templates is implemented for at least one patient service area. Level three of CDS provides guidance for all clinician activities related to protocols and outcomes in the form of variance and compliance alerts. PACS fully replaces film-based images.
- Stage 7: The hospital no longer uses paper charts to deliver and manage patient care and has a mixture of discrete data, document images, and medical images within its EHR environment. Clinical data warehouses (CDWs) are used to analyze patterns of clinical data. Clinical information can be readily shared via standardized electronic transactions (that is, continuity of care document [CCD]). The hospital demonstrates summary data continuity for all hospital services (for example, inpatient, outpatient, emergency department, and any owned or managed ambulatory clinics).

HIMSS Analytics provides a similar model for ambulatory products:

- Stage 0: Practice is paper-chart based.
- Stage 1: There is some intra-office/informal messaging and desktop access to clinical information, often in instructed form.
- Stage 2: There is the beginning of a clinical data repository in which orders and results are placed. There is also access to lab results from outside facilities.
- Stage 3: Computers have replaced paper in the practice. There is electronic messaging, clinical documentation at the point of care, and clinical decision support.
- Stage 4: The practice uses CPOE and structured data are accessible from the EHR for internal and external sharing.
- Stage 5: The practice has a personal health record and/or online tethered patient portal.
- Stage 6: Advanced clinical decision support is used; the system supports proactive care management and structured messaging.
- Stage 7: The practice is HIE capable and shares data between its EHR and a community-based EHR; it generates business and clinical intelligence.

### 3. Incentives for M.U of HER

The federal program for earning incentives for making M.U. of EHR is also constructed along a migration path. The phased-in series of criteria is intended to support more rigorous and robust quality measurement and improvement over time, with the ultimate goal being improved health outcomes and reduced cost growth (Connecting for Health 2009). Figure 1.2 in chapter 1 provides an illustration depicting the M.U. stages. Stage 1 criteria focus on data capture and sharing. Stage 2 focuses on advanced clinical processes. Stage 3 looks for improved outcomes. It is important to observe that the Stage 1 criteria for the period 2011 and 2012 require only a portion of specified functions to be used. For example, CPOE needs to be used for only 30 percent of patients whose records are electronic. Also, although there are a “core set” of 15 criteria that must be met, there are 10 “menu set” criteria from which 5 can be chosen to report. In addition, quality measures are only required to be *reported*. Stage 1 criteria include no requirements for demonstrating that quality has *improved*.

Stage 2 criteria raises the percent of usage required for earning incentives. Stage 2 criteria also pushes for greater healthcare value, with CPOE to be used for ordering labs and radiology procedures, bar-code medication administration systems to afford greater patient safety, patient engagement through enhanced access to health information, and submittal of quality measures directly to CMS. Stage 2 was also delayed by a year and clinical quality measures were tied to year rather than stage. While most providers and vendors appreciate the extra time and are certainly not calling for a faster pace, there are some (McGee 2011) observing that “there’s more to patient safety than ‘meaningful use.’” For example, M.U.

criteria do not explicitly address some of the nuances of integrating applications, potentially leaving critical gaps. For example, the criteria do not explicitly require interfaces between information systems and medical devices, potentially resulting in workflow and patient care issues.