| **ID #** | **Stage 2 Final Rule** | **Stage 3 Recommendations** | **Proposed for Future Stage** | **HITPC Questions / Comments** |
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| **Improving quality, safety, and reducing health disparities** |
| **SGRP112** | **EH MENU Objective: R**ecord whether a patient 65 years old or older has an advance directive**EH MENU Measure:** More than 50 percent of all unique patients 65 years old or older admitted to the eligible hospital's or CAH's inpatient department (POS 21) during the EHR reporting period have an indication of an advance directive status recorded as structured data. | Ensure standards support in CDA by 2016**EP MENU/EH Core Objective:** Record whether a patient 65 years old or older has an advance directive**EP MENU/EH Core Measure:** More than 50 percent of all unique patients 65 years old or older admitted to the eligible hospital's or CAH's inpatient department (POS 21) during the EHR reporting period have an indication of an advance directive status recorded as structured data. |   |  |
| **PUBLIC COMMENTS:****Summary Statement:** Commenters were strongly supportive of this objective with some providing suggested revisions to the measure percentage and whether it should be core/menu. Commenters also provided suggestions to enhance the objective through lowering the age requirement, including the actual directive and other documents, and establishing a standard for recording and transmitting an advance directive.**Key Points**:* Percentage: some said raise (e.g. 80%) and other said lower it (25%) since it was new for EPs
* Core for hospitals was supported (e.g. AHA), but menu for EPs since it would be new (e.g. AMA).
* A commenter requested that the age threshold be raised, but AARP and others requested it be lowered (patients 50 or older or even 18 or older). Because individuals could lose cognitive function at any time and for a number of reasons, it is appropriate for all adults to plan ahead.
* Commenters pointed out that this would likely not be applicable to many specialists
* Include ***the*** advance directive (that is the important content)
	+ Scanned copy (via a hyperlink)
	+ Structured data via a standard (w/ implementation guide) or at least specified fields
* Standard
	+ Concerned the CDA standard may not exist by 2016
	+ EHRA/NextGen***:*** We suggest that the standards to support the exchange of advance directive information reflect the fact that the relevant C-CDA document only needs to contain an indication of the presence of an advance directive, but is not required to embed the actual advance directive.
* Patient Input - One way to achieve the maintenance of advance directives in medical records may be to allow patients to submit them directly into their EHRs as is contemplated in SGRP 204B. According to AHRQ, between 65 and 76 percent of physicians whose patients had an advance directive were not aware that it existed.
* ***American Bar Association***
	+ Recommend that the Stage 3 meaningful use criteria include the objective “Record advance care planning status,” which is met by the following measure: more than 50 percent of all patients who die in an eligible hospital or CAH inpatient department during the reporting period have at least one of the following in the record: a copy of the patient’s advance directive, advance care planning notes, or a copy of a POLST form (***many*** commenters recommend the use of POLST or state initiative such as MOLST).
	+ Recommend that the record documents the length of time before death that the planning documentation was created. Please see full ABA comment for analysis and rationale.
* Directive should contain the identity and contact information of a patient’s healthcare decision-maker
* JCAHO requires Federally Qualified Health Centers to meet the HITPC proposed new measure
* Legal Points
	+ This seems to create dangerous partial information knowing that a person “has” an advance directive without knowing its content creates liability and the obligation to pursue getting that information without having a place to put it in the record
	+ It would be worthwhile to inventory state laws and devise an objective and measure that reflects the diversity of laws. Many states have state laws specifying “psychiatric advance directives,” and any ONC requirement applicable to persons with mental illness must be consistent with these state laws
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| **HITSC COMMENTS:**Agree with need to ensure standards support in CDA by 2016. |
| **SGRP 113** | **EP/EH Objective:** Use clinical decision support to improve performance on high-priority health conditions**Measure:** 1. Implement five clinical decision support interventions related to four or more clinical quality measures at a relevant point in patient care for the entire EHR reporting period. Absent four clinical quality measures related to an EP, eligible hospital or CAH’s scope of practice or patient population, the clinical decision support interventions must be related to high-priority health conditions. It is suggested that one of the five clinical decision support interventions be related to improving healthcare efficiency.2. The EP, eligible hospital, or CAH has enabled and implemented the functionality for drug-drug and drug-allergy interaction checks for the entire EHR reporting period.  | **Objective:** Use clinical decision support to improve performance on high priority health conditions**Measure:** 1. Implement 15 clinical decision support interventions or guidance related to five or more clinical quality measures that are presented at a relevant point in patient care for the entire EHR reporting period.  The 15 CDS interventions should include one or more interventions in two or more of the following areas, as applicable to the EP's specialty: * Preventative care (including immunizations)
* Chronic disease management, including hypertension\* (e.g., diabetes, coronary artery disease)
* Appropriateness of lab and radiology orders
* Advanced medication-related decision support\*\* (e.g., renal drug dosing)

2. The EP, eligible hospital, or CAH has enabled the functionality for drug-drug and drug-allergy interaction checks for the entire EHR reporting period.**Certification criteria:**1. Ability to track CDS triggers, how the provider responded, and the reason for overriding (as appropriate) to improve the effectiveness of CDS interventions 2. Ability to flag preference-sensitive conditions, and provide decision support materials for patients.3. Capability to check for a maximum dose in addition to a weight based calculation. 4. Use of structured SIG standards5. Ability for EHRs to consume CDS interventions from central repositories (e.g., rules for drug-drug interactions, rules for reporting diseases for public health departments, preference-sensitive care lists)\* This will assist in achieving the CDC’s goal of improvements in hypertension control.\*\*[Kuperman, GJ. (2007)Medication-related clinical decision support in computerized provider order entry systems a review.](http://jamia.bmj.com/content/14/1/29) *[Journal of the American Medical Informatics Association](http://jamia.bmj.com/content/14/1/29)*[: JAMIA, 14(1):29-40.](http://jamia.bmj.com/content/14/1/29)[\*\*\* Phansalkar, S., van der Siis, H., Tucker, A., Desai, A., Bell, D., Teich, J., Middleton, B., Bates, D (2012). Drug–drug interactions that should be noninterruptive](http://jamia.bmj.com/search?submit=yes&fulltext=drug+interaction&format=condensed&hits=10&sortspec=relevance&submit=Go)[in order to reduce alert fatigue in electronic health records. Journal of the American Medical Informatics Association: JAMIA, 2013;20:3 489-493](http://jamia.bmj.com/search?submit=yes&fulltext=drug+interaction&format=condensed&hits=10&sortspec=relevance&submit=Go)  | **Certification criteria:** Explore greater specificity for food-drug interactions  *Procedure/Surgery/lab/radiology/test prior authorization v.A*: for those procedures/surgeries/lab/radiology/test with clear and objective prior authorization requirements and a structured data prior authorization form is available, clinician fill out the prior authorization form using structured data fields and prior authorization can be granted electronically and in real-time by the payor.*Procedure/Surgery/lab/radiology /test prior authorization v.B*: for those procedures/surgeries/lab/radiology/test, for which prior authorization is non-standardized and is highly individualized, a standardized form is created that collects from the clinician text fields answering an agreed upon set of medical necessity questions, standardized form is sent electronically to insurer for review, insurer responds with Approval/Denial (with rationale if denied) using a standardized format text document back to clinician with either approval and/or denial with rationale.  | Ability for EHRs to consume CDS interventions from central repositories The EHR would query (via web services) available databases to identify “trigger event” conditions (e.g., case reporting criteria, drug-drug interactions, potentially relevant trials) based on the patient’s health condition, diagnoses, location, and other basic facts. The HITPC is interested in experience from payors that may contribute to CDS. |
| **PUBLIC COMMENTS:****High-level Summary*** Approximately the same number expressed favor/opposition to increasing to 15 interventions
	+ Concerns included: alert fatigue, lack of CDS interventions relevant to specialty practice (especially ones related to the CQMs).
	+ Clarification needed regarding whether the 15 interventions are to be at the practice/group level or the provider level (which could be burdensome for larger organizations).
* Comments were varied about the tie to CQMs and focus areas
	+ Some opposed, viewing it as too burdensome or not enough relevant CQMs available
	+ A few contended that the links and focus areas were "too arbitrary" and detracted from targeted QI
	+ A few suggested that ONC focus on outcomes and let providers pick what CDS they need to improve CQMs
* Most opposed the DDI requirement (noted as a source of alert fatigue)
* Many expressed concern that standards will not be available for structured SIG
* Few commenters were in favor of tracking provider responses to CDS
* Clarification was requested related to preference-sensitive conditions and vendors indicated concern about modularity of patient versus provider-facing CDS
* The criterion for the ability to consume CDS interventions was generally met with support
	+ Concern about readiness of standards and the cost of content subscriptions to providers.
* There were only a couple of comments related to food-drug interactions and were concerned about the specificity of information likely to be available in an EHR.
 |
| **HITSC COMMENTS:**Defer or reconsider in are areas of certification criteria. Central repositories of CDS interventions do not exist and the standards for representation of rules and data for rules are immature. More tracking, flagging, and alerts may make CDS more detrimental than useful. Recommend instead a more flexible acceptance of tools that are adaptable to different practice patterns and that allow established clinical workflows. A multi-year workplan is needed for research and for standards development.Proposed certification criterion #5 “Ability for EHRs to consume CDS interventions from central repositories (e.g., rules for drug-drug interactions, rules for reporting diseases for public health departments, preference-sensitive care lists)” dictates design (central repository). Certification criteria should specify what the EHR needs to do and not how it should be implemented within an enterprise. A central rules repository is just one way of implementing CDS. Suggest change to “Ability for EHRs to consume CDS rules as structured data using xxx standard” (standard TBD)• CDS needs to be congruent with clinician workflow requirements, it needs to be appropriate, tunable, fast and reliable to work in a clinical workflow setting -• EPs, EHs, and Vendors should be able to access central repositories but the certification requirements should not assume that they exist in all areas for all 15 of the CDS interventions. There needs to be an alternative to central repositories to meet this requirement.• Reporting and follow-up items need to be managed and handled properly• Payor experience that may contribute to CDS should be solicited from the payor community via hearings, town halls or surveys |
| **SGRP116** | **EP Objective:** Use clinically relevant information to identify patients who should receive reminders for preventive/follow-up care and send these patients the reminder per patient preference.**Measure:** More than 10% of all unique patients who have had two or more office visits with the EP within the 24 months before the beginning of the EHR reporting period were sent a reminder, per patient preference when available | **EP Objective:** Use clinical, social, or family history information (beyond demographics) to identify patients who should receive reminders for preventive/follow-up care**EP Measure:** More than 20% of all unique patients who have had an office visit with the EP within the 24 months prior to the beginning of the EHR reporting period were sent a reminder, per patient preference**Exclusion:** Specialists may be excluded for prevention reminders (could be more condition specific).  |   |  |
| **PUBLIC COMMENTS:*** Summary statement: Commenters partially agree with the proposed changes:
	+ Specifity requested on ‘clinically relevant’
	+ agreement on increase in threshold
	+ disagreement with decrease in office visit from two visits to one in a 24 mo period
	+ specificity requested for reminder and patient preference terms.
* Key Points
	+ Commenters wanted specificity on what would be clinically relevant and provided suggestions
	+ Will this objective/measure remain menu or core
	+ Commenters suggested raising threshold higher than 20%
	+ Commenters asked if it will meet MU to send reminders from non-CEHRT systems
	+ Commenters wondered if MU is met if patient opts out from reminders
	+ Most commenters suggesting keeping the two visits requirement

**Exclusion:** Specialists may be excluded for prevention reminders (could be more condition specific).* Summary statement: Commenters agree with inclusion, but want more specificity
* Key Points
	+ Recommend that the exclusion category be broad enough to cover physicians for whom routine patient reminders would not be contextually relevant or appropriate.
	+ Certain specialists should not be excused from such measures because they provide preventive care.
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| **HITSC COMMENTS:**This should be an initial percentage increasing over several years to 95% of patients for whom a preventive/follow-up reminder is appropriate being sent a reminder via their preferred communication channel. (Many will have moved and be effectively impossible to reach.) |
| **SGRP117** | **EH Objective:** Automatically track medications from order to administration using assistive technologies in conjunction with an electronic medication administration record (eMAR)**Measure:** More than 10 percent of medication orders created by authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period for which all doses are tracked using eMAR. | **EH Objective:** Automatically track medications from order to administration using assistive technologies in conjunction with an electronic medication administration record (eMAR)**Measure:** 1) More than 50% of medication orders created by authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period are tracked using eMAR.2) Mismatches (situations in which a provider dispenses a medication and/or dosing that is not intended) are tracked for use in quality improvement.  |   |  |
| **PUBLIC COMMENTS:****Measure:** More than 30% of medication orders created by authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period are tracked using eMAR.* Summary: Commenters agree with increasing the threshold
* Key Points
	+ Evaluate experience with Meaningful Use Stage 2 before increasing threshold
	+ Increase the threshold higher than 30%

**Measure:** Mismatches (situations in which a provider dispenses a medication and/or dosing that is not intended) are tracked for use in quality improvement.* Summary: Commenters agree with inclusion, but want more specificity
* Key Points
	+ Some commenters already track mismatches, but outside of eMAR
	+ Specificity of the terms: mismatch, not intended dosing, tracked, intention of measure
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| **HITSC COMMENTS:**Increasing to 95%. |
| **SGRP118** | **MENU Objective: I**maging results consisting of the image itself and any explanation or other accompanying information are accessible through Certified EHR Technology.**MENU Measure:** More than 10 percent of all tests whose result is one or more images ordered by the EP or by an authorized provider of the eligible hospital or CAH for patients admitted to its inpatient or emergency department (POS 21 and 23) during the EHR reporting period are accessible through Certified EHR Technology. | **EP MENU/EH CORE Objective:** Imaging results consisting of the image itself and any explanation or other accompanying information are accessible through Certified EHR Technology.**EP MENU/EH CORE Measure:** More than 10 percent of all tests whose result is an image (including ECGs) ordered by the EP or by an authorized provider of the eligible hospital or CAH for patients admitted to its inpatient or emergency department (POS 21 and 23) during the EHR reporting period are accessible (e.g. viewed directly in the EHR or a link to a separate system reached via the EHR) through Certified EHR Technology |   | What barriers could be encountered in moving this to core? |
| **PUBLIC COMMENTS:*** Summary statement: Commenters do not agree with changing this objective & measure to core
* Key Points
	+ Having a report should be core. Having the image should be menu.
	+ Stage 2 adoption data should be reviewed in determining feasibility for core in Stage 3.
	+ Especially difficult for EPs who are still adopting CEHRT
	+ Lack of clarity over term ‘accessible’ in CEHRT
	+ Exclusion criteria needed if moving from menu to core

What barriers could be encountered in moving this item from menu to core.* Summary statement: Numerous barriers were described and are summarized
* Key Points
	+ Cost of interfaces & availability are still a barrier, especially to EP
	+ Type of images have been expanded beyond RIS/PACS which widens scope of objective & measure
	+ Evaluation needed of networking, transmission, and storage impacts of large image files
	+ Lack of control over getting images from the various image systems
	+ Lack of high resolution displays may compromise adequate result viewing
	+ Clarity over term ‘accessible’ in CEHRT is required
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| **HITSC COMMENTS:**Reframe objective as an HIE objective to share images, in a stage subsequent to MU3. Clarify that EKGs are not images but could be useful to caregivers. The ability to access images is not a core EHR function, but can be enabled by linked access to imaging systems, image archives, by image exchange/sharing functions or by other means.• Cost of achieving interoperability with image source should be recognized. Definitions of image within the EHRs, and the relevance of actual images to the clinician are barriers.. • Considering the necessity of the use of the image, this should be considered only as a menu item. • The summary/report of imaging is always important; the actual image is only sometimes important and can be accessed for clinical purposes as needed without being stored in the core EHR.• Continue this as a menu measure with a 10% threshold. |
| **SGRP120** | **MENU Objective:** Record electronic notes in patient records **MENU Measure:** Enter at least one electronic progress note created, edited and signed by an eligible professional for more than 30 percent of unique patient office visits. Notes must be text-searchable. Non-searchable scanned notes do not qualify but this does not mean that all of the content has to be character text. Drawings and other content can be included with text notes under this measure.**MENU Measure:** Enter at least one electronic progress note created, edited, and signed by an authorized provider of the eligible hospital’s or CAH’s inpatient or emergency department (POS 21 or 23) for more than 30 percent of unique patients admitted to the eligible hospital or CAH’s inpatient or emergency department during the EHR reporting period. Electronic progress notes must be text-searchable. Non-searchable, scanned notes do not qualify, but this does not mean that all of the content has to be character text. Drawings and other content can be included with text notes under this measure.  | **CORE** EP/EH objective: Record electronic notes in patient records**EP:** Record electronic progress note, authored by the eligible professional for more than 30 percent of unique patient office visits **within four business days**. Notes must be text-searchable. Non-searchable scanned notes do not qualify but this does not mean that all of the content has to be character text. Drawings and other content can be included with text notes under this measure**EH:** Enter at least one electronic progress note (excluding the discharge summary) created, edited, and signed by an authorized provider of the eligible hospital’s or CAH’s inpatient or emergency department (POS 21 or 23) for more than 30 percent of unique patients **within** **four business days of admission** to the eligible hospital or CAH’s inpatient or emergency department during the EHR reporting period.  |   |  |
| **PUBLIC COMMENTS:*** Summary statement: 2/3rds of the commenters wanted additional specificity before providing an opinion on inclusion of this change. Of the 1/3 who provided an opinion, most agreed with the proposed changes.
* Key Points
	+ Many commenters wanted clarification on whether this will remain a menu item or will it become core
	+ Many commenters wanted clarification on whether the objective & measure applies to EH/CAH, EP or Both
	+ Many commenters suggested a change to four business days from four calendar days
	+ Commenters wondered if the language change from ‘unique’ to ‘office’ was intentional
	+ Commenters suggested clarifying the ‘created/edited/signed’ language based on MU2 experience requiring further clarification
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| **HITSC COMMENTS:**Retain as menu set (offset to recommendation to retain demographics, etc.) and need to define “high priority data” based on an explicit value case analysis.It is critically important that the family history required is evidence-based, in the sense that it is validated in a clinical trial as informing improved patient care. Whether or not each datum involves a first-degree relative is irrelevant to this. |
| **SGRP121** | **EH MENU Objective:** Provide structured electronic lab results to ambulatory providers**EH MENU Measure:** Hospital labs send structured electronic clinical lab results to the ordering provider for more than 20 percent of electronic lab orders received | **EH CORE Objective:** Provide structured electronic lab results to eligible professionals. **EH CORE Measure:** Hospital labs send (directly or indirectly) structured electronic clinical lab results to the ordering provider for more than 80% of electronic lab orders received. |   |  |
| **PUBLIC COMMENTS:*** Summary statement: Most commenters disagreed with the move to core and the increase in threshold, and want specificity on new terms
* Key Points
	+ Many commenters recommended not moving to core until MU2 results are assessed; if it does move to core, keep threshold at 20%
	+ Many commenters expressed concern with the jump in threshold from 20% to 80%; if it does stay menu, increase threshold to 30%
	+ Specificity requested on changes to terms
		- Does ambulatory provider to eligible professionals coincide with definition of an EP
		- Define directly or indirectly
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| **HITSC COMMENTS:**Why not require LOINC by name? It is clearly mature enough and has been recommended for this by HITSC. |
| **SGRP122** | **NEW** | **Objective:** The EHR is able to assist with follow-up on test results **Measure:** 10% of test results, including those which were not completed are acknowledged within 3 days**Certification Criteria:*** EHRs must have the ability to identify abnormal test results and to notify the ordering providers when results are available or not completed by a certain time.
* EHRs must record date/time test results are reviewed and by whom
 |  |  |
| **PUBLIC COMMENTS:*** Summary statement: Half of the commenters wanted additional specificity before considering inclusion at Stage 3. Commenters who did provide an opinion were divided equally between inclusion/exclusion at Stage 3.
* Key Points
	+ Clarify who this applies to: EH or EP or both EH/CAH/EP
	+ Clarify the intent of the measure, what kinds of tests are included, and what it means to acknowledge.
	+ Specificity requested around the term abnormal
	+ Specificity requested around the 3 days: calendar or business; from date or order or date of result report; preliminary or final, how to determine whether an order needs to be followed up as ‘not done’
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| **HITSC COMMENTS:**Is this 3 working days? Three week days? If 72 hours is meant, we should say that. Increasing to 95% over time |

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| **Certification Criteria ONLY** |
| **ID #** | **Stage 2 Final Rule** | **Stage 3 Recommendations** | **Proposed for Future Stage** | **HITPC Questions / Comments** |
| **SGRP101** | **Eligible Provider (EP) Objective:** Use computerized provider order entry (CPOE) for medication, laboratory and radiology orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local and professional guidelines**Eligible Hospital (EH) Objective:** Use computerized provider order entry (CPOE) for medication, laboratory and radiology orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local and professional guidelines**EP/EH Measure:** More than 60 percent of medication, 30 percent of laboratory, and 30 percent of radiology orders created by the EP or authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period are recorded using CPOE. | **Certification Criteria ONLY** **Certification Criteria:** EHR must be able to consume an externally supplied list of “never” DDIs, using RxNorm and NDF-RT standards along with a TBD DDI reactions value set.**Certification Criteria for EPs**EHR must have the ability to transmit lab orders using the lab order and results Interface guidelines produced by the S&I Framework Initiative. | Seeking externally maintained list of DDIs with higher predictive value |  |
| **PUBLIC COMMENTS:**Commenters expressed overall support for the objective, with a range of views on increasing and decreasing the percentage thresholds for the measure (more leaned towards not increasing, particularly for labs and rads). Commenters also focused on and expressed concerned about the concept of external DDI checking – implementation, usefulness, reliability, cost and administrative efficiencies, and maintenance/authority of an external list. * External List of DDIs
	+ Include more information on drug-drug interaction (DDI) maintenance of never combinations, as well as drug-food, drug-disease, drug-genetic map, and drug-age interactions. Include HL7 V3 Nutrition Order Clinical Messages.
	+ Some commenters suggested removing DDI checking (already included in EHR). The proposed certification criteria adds complexity and potentially clinical risk by requiring a standard for receiving values because EHRs are already obtaining this information today from third parties. Implementation would likely not be optimal. “On the fly” query would not always be possible – Assume that the ”never DDI” list would be provided along with medication content from third parties
	+ ***EHRA*** - Confusion about RxNorm and NDF-RT standards for DDIs. EHR developers would like more information about the standards for supplying the DDI list.
		- This creates a shift from multum codes to RxNorm codes for DDIs?
		- Would medication orders also need to map to RxNorm codes since the current CPOE is based on multum codes?
	+ Will this come from database vendors? Johns Hopkins University has built a list of Never DDIs that CMS may be able to refer to as an example for further objective refinement.
	+ One list? - how will the list be updated and maintained? Who/What has authority over list(s)?
	+ Need agreed upon list and levels of significance
	+ Would it only include DDIs that indicate certain medications should never be active orders at a single time regardless of a patient’s condition?
	+ Undue reliance on this list will diminish the screening of other DDIs that may not make the list, but can be just as harmful to patients.
	+ As seen with the CQMs – any requirement to adopt clinical standards from any third party requires a significant amount of communication, transparency, and wide acceptance on the authority/reliability of the third party.
	+ Difficult/unlikely feasible in the near future. In particular, there is insufficient indication that there is or will be clarity in -content standards (NDDF, RXNorm, etc) or technical standards (deployment, real-time use, API, etc.).
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| **HITSC COMMENTS:**Agree with deferral for future stages. The “externally vetted list” must be better defined before it can be standardized, and methods to reduce false positives - to avoid alert fatigue - should be developed. Kaiser has a carefully developed, operational list. |
| **SGRP103** | **EP/EH Objective:** Generate and transmit permissible prescriptions electronically (eRx)**Measure:** More than 50% of all permissible prescriptions, or all prescriptions written by the EP and queried for a drug formulary and transmitted electronically using CEHRT.**EH MENU Objective:** Generate and transmit permissible discharge prescriptions electronically (eRx) **EH MENU Measure:** More than 10 percent of hospital discharge medication orders for permissible prescriptions (for new, changed, and refilled prescriptions) are queried for a drug formulary and transmitted electronically using Certified EHR Technology | **Certification criteria:** 1. Ability to electronically transmit permissible prescriptions using CEHRT.
2. The ability to compare prescriptions to at least one drug formulary and identify generic substitutions is enabled for the entire reporting period.
 | Advanced medication reconciliation to check for formulary compliance. Medication formulary checking:* If Rx is formulary-compliant, transmit to pharmacy.
* If Rx is not formulary compliant, prescriber presented with alternatives (if available through formulary database) or provided a structured prior-authorization form to complete before Rx transmitted. Capability for automatic approval of prior-auth should be available.
 | How to include formulary checking into EHR and connection to formulary sources (e.g., PBMs)? |
| **SGRP104** | **EP Objective: Record the following demographics**• Preferred language• Sex• Race• Ethnicity• Date of birth**EH Objective: Record the following demographics**• Preferred language• Sex• Race• Ethnicity• Date of birth• Date and preliminary cause of death in the event of mortality in the eligible hospital or CAH**Measure:** More than 80 percent of all unique patients seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period have demographics recorded as structured data. | Retire prior demographics objective because it is topped out (achieved 80% threshold).**Certification criteria:** * Patient preferred method of communication
* Occupation and industry codes
* Sexual orientation, gender identity (optional fields)
* Disability status
* Differentiate between patient reported & medically determined

Need to continue standards work |   | Do commenters agree with retiring the measure, or should we continue this objective? Continuing the measure would mean an additional number of objectives that providers will need to attest to. |
| **PUBLIC COMMENTS:*** Commenters suggested a number of additional data elements to require/collect: Housing status (4), organ donor status (2), school lunch status, fertility status, marital status, place of birth, veteran status, hobbies and interests (2), number of guns in the household, and a variety of end-of-life care measures.
* Some commenters requested more specificity on race/ethnicity data collection, including using ACA section 4302 and >7 'Asian' and >4 'native Hawaiian/islander' categories.

**Certification criteria: Occupation and industry codes (192 comments)*** Summary: Commenters overwhelmingly support adding these, but many expressed concern about coding and standards.
* Some expressed agreement with the addition for certification criteria, but would like there to be a use case so that practices actually capture this information.
* A few commenters opposed these data elements, who were not sure of how relevant or useful the data would be to care, and one association, which contended that I/O data "do not bear enough relevance to a patients’ ongoing eye care" and thus oppose inclusion
* Commenters expressed some concern about the cost of maintaining I/O data, of updating EHR systems to capture it, and the complexity of system development
* A few commenters requested clarification on the data standards to be used, if I/O would be two fields or one or more, and the feasibility of collecting sufficiently detailed information
* A couple commenters discussed including dates and keeping a longitudinal record – and note the need to distinguish 'usual' versus current occupation

**Sexual orientation, gender identity (optional fields)** * Summary: Most commenters agreed with inclusion, but want more specificity as to data standards, definitions (e.g., "more than two genders"), and whether/how the data will affect other parts of EHR systems. One commenter offered detailed training suggestions to address providers' discomfort with the subject (0545)
* A large number supported inclusion and recommended that they be mandatory and/or included as a use case, not just certification criteria. Some opposed inclusion and expressed discomfort with or concern about the sensitivity of the subject.
* A number of those opposed did not believe these data to be relevant to care
* A few did not feel that these data should be demographics, because front desk staff usually collect that and this sort of 'sensitive' data should be collected by members of the care team.
* EHR vendors and provider organizations expressed concern about the complexity of development for these elements, see EHRA.

**Disability status** * Summary: There were only a few comments on this element, but they were broadly supportive. However, commenters did raise a number of concerns, particularly concerning the availability and viability of data standards, provider burden, EHR development/upgrade cost, and relevance to practice.
* The American College of Occupational and Environmental Medicine (ACOEM) would prefer that we use the term "functional status" or "workability."
* Some commenters felt this element should be in clinical, not demographic data, and were concerned about increasing provider burden
* Some commenters expressed concern about the standard readiness, technical costs of developing this, and upgrade costs. A number suggested that ONC collaborate with NCHS/NCBDDD to determine data standards.
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| **HITSC COMMENTS:**Disagree. Although a high level of demographic data recording has been achieved, discontinuing the requirement could diminish collection of foundational data. Sensitive data such as sexual orientation and disability status should be omitted.No other sector would consider 80% to be optimal performance on an important quality measure, nor should healthcare.• Agree with the retirement of the topped out measures (Original demographic measures)• Agree with the addition of the new updated demographic measures• Structured data will be captured and not codified data at this time• What is the definition of Disability Status? Federal definition or patient identification, or otherwise• Question on how sexual orientation will or can be codified• Introduce as a general comment about Disability status being included as long as it can be captured• Date of disability status and inclusion of functional status should be includedNote: CMS has established HCPCS and modifier coding requirements for reporting functional status and degree of impairment for therapy services claims, and explicitly requires them to be documented into the medical record. Any CMS requirement for that kind of information for meaningful use Stage 3 should take that into account and leverage it at least where the two requirements overlap – not impose additional requirement. The CMS claims requirement impacts all manners of therapy services providers including hospitals and physicians |
| **SGRP105** | **Consolidated in summary of care objective** Maintain an up-to-date problem list of current and active diagnoses  | **Certification criteria:** EHR systems should provide functionality to help maintain up-to-date, accurate problem list**Certification criteria:** Use of lab test results, medications, and vital signs (BP, ht, wt, BMI), to support clinicians’ maintenance of up-to-date accurate problem lists. Systems provide decision support about additions, edits, and deletions for clinicians’ review and action. For example, if diabetes is not on the problem list but hypoglycemic medications are on the medication list: the EHR system might ask the provider whether diabetes should be on the problem list. It would not automatically add anything to the problem list without professional action.  | Patient input to reconciliation of problems | The implementation of these criteria will assist in achieving the CDC’s goal of using EHR technology features to identify patients meeting criteria for hypertension who are not yet diagnosed and managed for the disorder. How to incorporate into certification criteria for pilot testing?The intent is that EHR vendors would provide functionality to help maintain functionality for active problem lists, not that they supply the actual knowledge for the rules. |
| **PUBLIC COMMENTS:**Overall, commenters were concerned that this item, as written, is too vague. Many commenters simply did not support it because of this (or other reasons), but even among those who supported it (or pieces of it), a good proportion also noted concerns about vagueness. A number of commenters suggested integrating this requirement with CDS, indicating that it is duplicative or redundant, and one suggested retiring this measure in favor of enhanced CDS. A few suggested integrating it with the other 'list' items (SGPR 106, 107), and one supported using it in conjunction with 405, submission to registries. Commenters were also concerned about the potential burden on providers of additional alerts or verification requirements, one requesting that the criteria require that reviewing/adding/declining-to-add items to list is a minimally invasive 'one-click' function. Specialty organizations were particularly concerned that full problem lists would fall outside their scope of practice and place undue burden upon them.  Another common thread among multiple comments was that ONC ensure full testing and vetting before requiring these functionalities. Multiple commenters noted the need for standards in various aspects of this item, including one who suggested convening a TEP to study/establish standards for patient involvement in EHR, portals, etc. Similarly, the VA commented in detail that they feel that this is too complex to be achieved by stage 3. In fact, they comment that they have thus far been unable to implement such functionality (see comment below).  |
| **HITSC COMMENTS:**Clinical Operations WGRecommend against standardizing at this time. Best practice advisories, alternative recommendations, and alerts should qualify as helpful tools but should not be mandated. Patient input could be used e.g. to reconcile problem list but introduces new issues in data integrity and validity.The diabetes example is based on knowledge. How would this work otherwise? In any case, this functionality is not well enough characterized to be a certification criterion. • Our question is how incorporate into certification criteria on using computer logic related to provide assistance in determining problems not on the list based on data like lab findings or medications. For purposes of certifiying this functionality the testing scripts and data sets would have to being clinical relevant and included ‘clue data’ that would lead to additional problems. This represents advanced software logic – The point here is that you want straightforward connections between findings (interventions and diagnostics) and a ‘problem.• Limit the certification criteria and therefore pilot testing to high importance, low ambiguity cases.• Chronic nationwide issues are most feasible. Consider limitation to the top 10• Nothing in making this a certification criteria that prevents vendors from adding this functionality into their system without this requirement• The Healthcare industry as a whole may not be ready for this functionality right now• This type of requirement will create significant challenges with the test scripts. |
| **SGRP106** | **Consolidated with summary of care -** Maintain active medication list | **Certification criteria:** EHR systems should provide functionality to help maintain up-to-date, accurate medication list**Certification criteria:** Use of problems and lab test results to support clinicians’ maintenance of up-to-date accurate medication lists. Systems provide decision support about additions, edits, and deletions for clinicians’ review. For example, an antibiotic (not for acne) has been on the medication list for over say a month, the EHR system might ask the provider whether the medication is a chronic medication. The system will not make any changes without professional approval.  | **Certification criteria:** Use other EHR data such as medications filled or dispensed, or free text searching for medications to support maintenance of up-to-date and accurate medication lists.  | How to incorporate into certification criteria for pilot testing?The intent is that EHR vendors would provide functionality to help maintain functionality for active medication lists, not that they supply the actual knowledge for the rules. |
| **PUBLIC COMMENTS:**Many commenters expressed support for this additional functionality. Equally, commenters expressed concern for a variety of reasons, with the primary concerns being the vagueness of the certification criteria, the potential for alert fatigue, and additional costs and complexity for providers. Additionally, various specialty interests were expressed. A few options were given for testing and standards. |
| **HITSC COMMENTS:**Recommend against standardizing at this time, see above response on Problem List. Integration of external data sources e.g. for fill status introduces new concerns with data validation that need to be resolved first.• Expansions of the measures as explained in certification criteria is of concern due to physician workflow, varying vendor functionality and clear definitions of timelines and factors related to the triggering events.• 105 and 106 should be tied together and the use can be linked together* Link the two together so that we understand the difference between filled and dispensed - The concern expressed related to the standards/process to provide the information of a medication being filled then dispensed back to the primary care provider (EP).

• Good idea for long term, but may not be appropriate right now• Consider testing CDS in the real world with input from actual providers and workers, before it is added as an expanded measure.• Great for the future, but difficult to do right now• More clarity can be added with the use cases to produce adequate testing and then the establishment of certification criteria |
| **SGRP107** | **Consolidated with summary of care -** Maintain active medication allergy list | **Certification criteria:** EHR systems should provide functionality to code medication allergies including its related drug family to code related reactions.  | Contraindications that could include adverse reactions and procedural intolerance.  | The intent is that EHR vendors would provide functionality to help maintain functionality for active medication allergy lists, not that they supply the actual knowledge for the rules. |
| **PUBLIC COMMENTS:**Commenters generally supported these proposals. Commenters pointed out the need for a clear and precise certification criteria, which would enable more specific comments. Commenters also pointed out the need for standards with some recommendations given. Commenters also suggested the inclusion of other allergens and the need to differentiate allergy intolerances and adverse reactions. A few commenters were concerned about alert fatigue and costs due to this additional functionality. |
| **HITSC COMMENTS:**See comments on SGRP 105, 106. Advisories and alerts should qualify as helpful tools but should not be mandated. Patient supplied data could be helpful but would introduce new issues with data validity, reliability, and integrity. |
| **SGRP108** | **Objective: Record and chart changes in vital signs:**• Height/length• Weight• Blood pressure (age 3 and over)• Calculate and display BMI• Plot and display growth charts for patients 0-20 years, including BMI**Measure:** More than 80 percent of all unique patients seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period have blood pressure (for patients age 3 and over only) and height/length and weight (for all ages) recorded as structured data | Retire measure because it is topped out (achieved 80% threshold). Track progress to improve outcomes via CQM NQF 0018 |   | Do commenters agree with retiring the measure, or should we continue this objective? Continuing the measure would mean an additional number of objectives that providers will need to attest to. |
| **PUBLIC COMMENTS:**Comments were mixed on whether to retire or not. |
| **HITSC COMMENTS:**Agree with retiring the measure.SUMMARY COMMENT: Retiring this measure makes sense because attestation is of limited use at this stage of MU, but measures should demonstrate the use of such data, not its collection. In general, retiring attestation measures is reasonable provided the intent is that the data is transitioning to data use.Comments: Floyd: This objective should be a requirement for the EHR to automatically report the frequency of each item among all visits rather than a requirement for attestation. There is no certification requirement for EHRs to perform functional process utilization. While there should be such a requirement, without it the objective remains an attestation element and adds to unnecessary work on the part of providers.* Continue blood pressure and BMI with increasing performance standard (to 95%) over 3 years. Perform evidence review regarding the age up to which growth-chart calculation is clinically important.
* Agree with retiring

Discussion:* Ideally would capture the actual values for the measure – if you wouldn’t do that then there is no reason to retain
* Healthcare is the only place where 80% would be “topped out”
* BP is measured in one of the MU2 measures—BMI is also covered for some patients therefore probably not needed
* Only BP would be measured if this is eliminated
* This measure looks at capture of data—not USE of data—need to move beyond capture to utilization
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| **SGRP109** | **EP/EH Objective:** Record smoking status for patients 13 years old or older**Measure:** More than 80 percent of all unique patients 13 years old or older seen by the EP or admitted to the eligible hospital's or CAH's inpatient or emergency departments (POS 21 or 23) during the EHR reporting period have smoking status recorded as structured data | Retire measure because it is topped out (achieved 80% threshold). Track progress to improve outcomes via CQM NQF 0028 |   | Do commenters agree with retiring the measure, or should we continue this objective? Continuing the measure would mean an additional number of objectives that providers will need to attest to. |
| **PUBLIC COMMENTS:**Comments were mixed on retirement. |
| **HITSC COMMENTS**Agree with retiring the measureSUMMARY COMMENT: Retiring this measure makes sense because attestation is of limited use at this stage of MU, but measures should demonstrate the use of such data, not its collection. In general, retiring attestation measures is reasonable provided the intent is that the data is transitioning to data use.Comments: * This objective should be a requirement for the EHR to automatically report the frequency of each item among all visits rather than a requirement for attestation. There is no certification requirement for EHRs to perform functional process utilization. While there should be such a requirement, without it the objective remains an attestation element and adds to unnecessary work on the part of providers.
* Continue measure with increasing performance standard (to 95%) over 3 years.
* Agree with retiring

Discussion: See discussion for SGRP 108 |
| **SGRP114** | **EP/EH Objective:** Incorporate clinical lab-test results into Certified EHR Technology as structured data **Measure:** More than 55 percent of all clinical lab tests results ordered by the EP or by authorized providers of the eligible hospital or CAH for patients admitted to its inpatient or emergency department (POS 21 or 23 during the EHR reporting period whose results are either in a positive/negative affirmation or numerical format are incorporated in Certified EHR Technology as structured data | **Objective:** Incorporate clinical lab-test results into EHR as structured data**Measure:** More than 80% of all clinical lab tests results ordered by the EP or by authorized providers of the eligible hospital or CAH for patients admitted to its inpatient or emergency department (POS 21 or 23) during the EHR reporting period whose results are either in a positive/negative or numerical format are incorporated in Certified EHR Technology as structured data |   |  |
| **PUBLIC COMMENTS:*** Summary statement:
	+ Commenters agree with the increase in threshold to 80% but want more specificity
* Key Points
	+ Clarify if this measure is menu or core
	+ Many commenters raised concern regarding the higher threshold affecting EPs, specialists and CAH because of the increased interface burden they face to meet this threshold
	+ Suggestion to evaluate experience in meeting 55% threshold in Stage 2 before increasing threshold to 80%
	+ Consider exclusion criteria at this threshold
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| **HITSC COMMENTS**Clinical Ops WG: Increased threshold should be workable with existing standards. |
| **SGRP115** | **EP CORE Objective:** Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research, or outreach**EP CORE Measure:** Generate at least one report listing patients of the EP, eligible hospital or CAH with a specific condition. | **EP Objective:** Generate lists of patients for multiple specific conditions and present near real-time (vs. retrospective reporting) patient-oriented dashboards to use for quality improvement, reduction of disparities, research, or outreach reports. Dashboards are incorporated into the EHR’s clinical workflow for the care coordinator or the provider. It is actionable and not a retrospective report.  |   |  |
| **PUBLIC COMMENTS:**Generate lists of patients for multiple specific conditions * Summary statement: Most commenters agreed with the intent of this measure
* Key Points
	+ Many commenters requested specificity on the number of lists to meet MU criteria
	+ Additional comments received on what the lists should include and when they should be used

Present near real-time (vs. retrospective reporting) patient-oriented dashboards to use for quality improvement, reduction of disparities, research, or outreach reports. * Summary statement: Most commenters agreed that the language in this part of the measure was not specified well-enough to offer recommendation on inclusion or exclusion
* Key Points
	+ Numerous comments were received requesting definition of terms used in the objective
	+ Commenters suggested MU Stage 2 data is evaluated prior to increasing threshold
	+ Exemption criteria should be defined

Dashboards are incorporated into the EHR’s clinical workflow for the care coordinator or the provider. * Summary statement: Commenters were divided on whether this should be included in the measure
* Key Points
	+ Commenters requested more specificity in the types of information presented on the dashboard and where it fits into clinical workflow
	+ Question raised over how this would be measurable as proposed
	+ Additional details on the intent of this objective would be helpful in assessing its feasibility.

It is actionable and not a retrospective report. * Summary statement: Commenters were evenly divided on whether this should be included in the measure
* Key Points
	+ Definition of actionable needs specificity
	+ Cannot describe data as ‘not retrospective’ as lists and dashboard may be built on data from that day and previously
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| **HITSC COMMENTS:**Need to specifically define near-real-time, and “actionable” to assist standards selection.As a form of presentation layer, dashboards are fundamentally limited—to a static set of just a few elements. Dashboards should not be specified in certification or elsewhere. Apt EP Objective: Present to EPs (and other clinicians) usable, actionable patient-specific information in time to improve care processes. |
| **SGRP119** | **MENU Objective:** Record patient family health history as structured data**MENU Measure:** More than 20 percent of all unique patients seen by the EP or admitted to the eligible hospital or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period have a structured data entry for one or more first-degree relatives   | **CORE Objective:** Record high priority family history data **CORE Measure:** Record high priority family history in 40% of patients seen during reporting period**Certification criteria:** Make sure that every appropriate CDS intervention can take into account family history for outreach (need to move that functionality along as part of preventative outreach). |   |  |
| **PUBLIC COMMENTS:*** Summary statement: Commenters disagreed with the move to core and the change in wording
* Key Points
	+ Agree with the intent to capture family history data, but not details
	+ Too many changes – menu to core and changing what is being captured
	+ Many commenters suggested evaluating experience from MU Stage 2 first before making changes to move to core or to threshold
	+ The change in wording caused many comments and confusion
		- The term “high priority” needs clarification
	+ Many commenters wondered if it would still be structured data?
	+ If move to core, then need to develop exclusion criteria
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| **HITSC COMMENTS:**Retain as menu set (offset to recommendation to retain demographics, etc.) and need to define “high priority data” based on an explicit value case analysis.It is critically important that the family history required is evidence-based, in the sense that it is validated in a clinical trial as informing improved patient care. Whether or not each datum involves a first-degree relative is irrelevant to this. |
| **SGRP 130** | **New**  | **Objective:** Use computerized provider order entry for referrals/transition of care orders directly entered by any licensed healthcare professional who can enter orders into the medical record per State, local and professional guidelines to create the first record of the order.**Measure:** More than 20% of referrals/transition of care orders created by the EP or authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period are recorded.  |   |  |
| **Public Comment*** General support for this proposal
* Many expressed confusion as to whether this proposal simply required the recording of the referrals/transition of care orders created by the EP or whether it actually required the electronic transmission of these orders.
	+ For actual electronic transmission, concerned about the lack of interoperability and standards, including the ability of post-acute care facilities to receive the orders
	+ Define recorded
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| **HITSC Comment**Unclear how referral order workflow would work. Would an order initiate an X12 administrative referral/auth transaction, send a clinical message to the next provider of care, and initiate a closed loop referral management process etc? |