2017 AHA Annual Survey Information Technology Supplement

HOSPITAL NAME:_____

CITY & STATE:_____

Please Note: This year we continue to include new questions designed to capture interoperability and exchange, and provider burden associated with documentation and quality reporting. This information will provide important data on the state of interoperability in hospitals as well as provider burden associated with EHRs.

GENERAL INSTRUCTIONS: Please respond to each of the following questions as of the day the survey is completed.

1. **Does your hospital currently have a computerized system which allows for:**

(Fully implemented means it has completely replaced paper record for the function.)	1. **Fully Implemented Across All Units**	2. **Partially Implemented**	3. **Not Implemented**
Electronic Clinical documentation			
a. Physician notes	☐	☐	☐
b. Nursing notes	☐	☐	☐
c. Problem lists	☐	☐	☐
d. Medication lists	☐	☐	☐
e. Discharge summaries	☐	☐	☐
f. Advanced directives (e.g. DNR)	☐	☐	☐
Results Viewing			
a. Radiology images	☐	☐	☐
b. Diagnostic test results (e.g. EKG report, Echo report)	☐	☐	☐
c. Diagnostic test images (e.g. EKG tracing)	☐	☐	☐
d. Consultant reports	☐	☐	☐
e. Laboratory tests	☐	☐	☐
f. Radiology tests	☐	☐	☐
g. Consultation requests	☐	☐	☐
Computerized Provider Order Entry (Provider (e.g., MD, APN, NP) directly enters own orders that are transmitted electronically)			
a. Laboratory tests	☐	☐	☐
b. Radiology tests	☐	☐	☐
c. Medications	☐	☐	☐
d. Consultation requests	☐	☐	☐
e. Nursing orders	☐	☐	☐

(Fully implemented means it has completely replaced paper record for the function.)	**1.** **Fully Implemented Across All Units**	**2.** **Partially Implemented**	**3.** **Not Implemented**
Decision Support			
a. Clinical guidelines (e.g. Beta blockers post-MI, ASA in CAD)	☐	☐	☐
b. Clinical reminders (e.g. Pneumococcal vaccine)	☐	☐	☐
c. Drug allergy alerts	☐	☐	☐
d. Drug-drug interaction alerts	☐	☐	☐
e. Drug-lab interaction alerts	☐	☐	☐
f. Drug dosing support (e.g. renal dose guidance)	☐	☐	☐
Bar Coding or Radio Frequency Identification (RFID) for Closed-loop Medication Tracking			
a. Medication administration	☐	☐	☐
b. Patient verification	☐	☐	☐
c. Caregiver verification	☐	☐	☐
d. Pharmacy verification	☐	☐	☐
Other Functionalities			
a. Bar coding or Radio Frequency (RFID) for supply chain management	☐	☐	☐
b. Telehealth	☐	☐	☐
c. Remote patient monitoring	☐	☐	☐

Prescribing Controlled Substances

2. **How do designated staff in your hospital check your state's Prescription Drug Monitoring Program (PDMP) data?**
   a. ☐ Within hospital's EHR systems
   b. ☐ Outside of hospital's EHR systems (e.g. PDMP portal or secure website)
   c. ☐ Do not know
   d. ☐ NA

Patient Engagement

3. Are patients treated in your hospital able to do the following:

		1. Yes	2. No	3. Do not know
a.	View their health/medical information online	☐	☐	☐
b.	Download information from their health/medical record	☐	☐	☐
c.	Import their records from other organizations into their record in your EHR patient portal	☐	☐	☐
d.	Electronically transmit (send) transmission of care/referral summaries to a third party	☐	☐	☐
e.	Request an amendment to change/update their health/medical record	☐	☐	☐
f.	Request refills for prescriptions online	☐	☐	☐
g.	Schedule appointments online	☐	☐	☐
h.	Pay bills online	☐	☐	☐
i.	Submit patient-generated data (e.g., blood glucose, weight)	☐	☐	☐
j.	Secure messaging with providers	☐	☐	☐
k.	Designate family member or caregiver to access information on behalf of the patient (e.g., proxy access)	☐	☐	☐
l.	Access their health information using any application configured to meet the application programming interfaces (API) specifications in the EHR	☐	☐	☐

4. Approximately what percentage of patients treated in your hospital during calendar year 2017 have activated their access to your patient portal?

a. ☐ None (0%)

b. ☐ Greater than 0%, but less than 10%

c. ☐ Greater than or equal to 10%, but less than 25%

d. ☐ Greater than or equal to 25%, but less than 50%

e. ☐ Greater than or equal to 50%, but less than 75%

f. ☐ Greater than or equal to 75%, up to and including 100%

g. ☐ Do not know

Provider Burden related to Reporting Data to Public Health and Federal Agencies

5. **What are some of the challenges your hospital has experienced when trying to submit health information to public health agencies to meet meaningful use requirements? (Please check *all* that apply)**

    a. ☐ We do not know to which public health agencies our hospital should send the information to meet meaningful use requirements

    b. ☐ Public health agencies lack the capacity to electronically receive the information

    c. ☐ We use different vocabulary standards than the public health agency, making it difficult to exchange

    d. ☐ Other_____

    e. ☐ NA – Have not experienced any major challenges

6. **To what degree does your hospital use automated, EHR generated measures (versus using manual processes such as chart abstraction) for each of the following programs?**

	1. Fully or primarily automated	2. Mix of automated and manual process	3. Fully or primarily manual	4. Do not know/NA
a. Medicare Inpatient Quality Reporting	☐	☐	☐	☐
b. Physician-Specific electronic clinical quality measures (eCQMs)	☐	☐	☐	☐
c. Hospital-specific (eCQMS)	☐	☐	☐	☐

7. **What barriers—if any—has your hospital experienced in the transition from manual to fully or primarily automated reporting? (Please check *all* that apply)**

    a ☐ Lack IT staff needed to generate reports

    b. ☐ EHR does not possess capability to automatically generate measures

    c. ☐ EHR data not mapping correctly, leading to missing or inaccurate information

    d. ☐ Poor EHR usability or design issues, leading to missing or inaccurate information

    e. ☐ Poor EHR data quality that requires manual correction

    f. ☐ Difficulty extracting data from EHR

    g. ☐ Problems with clinical workflow leading to missing data or incorrect information being collected

    h. ☐ Other_____

    i. ☐ NA (e.g., generate measures using fully or primarily automated processes)

    j. ☐ Do not know

8. **Does your EHR system have the capability to export <u>multiple</u> records from it's system?** *Sometimes referred to as "bulk export; this functionality could enable analytics and reporting, population management, or switching EHR systems.*

    a. ☐ Yes   b. ☐ No   c. ☐ Do not know

Provider Burden Related to Documentation

9a. Does your hospital use your EHR or other IT system data (e.g., log audit data) to track the amount of time clinicians spend completing documentation?

       1. ☐ Yes (go to 9b)   2. ☐ No (go to 10)   3. ☐ Do not know (go to 10)   4. ☐ NA (go to 10)

9b. If yes, how are these data used (e.g. monitor burden reduction initiatives or vendor product improvement)?

_____

_____

_____

Sending patient health information

10. When a patient transitions to another care setting or organization <u>outside your hospital system</u>, how often does your hospital use the following methods to <u>SEND</u> a summary of care record? Please indicate how often each method is used <u>across</u> each row below.

Methods without intermediaries	1. Often	2. Sometimes	3. Rarely	4. Never	5. Do not know/NA
a. Mail or fax	☐	☐	☐	☐	☐
b. eFax using EHR	☐	☐	☐	☐	☐
c. Provider portal for view only access to EHR system	☐	☐	☐	☐	☐
d. Interface connection between EHR systems (e.g. HL7 interface)	☐	☐	☐	☐	☐
e. Direct access to EHRs (via remote or terminal access)	☐	☐	☐	☐	☐
f. Other_____	☐	☐	☐	☐	☐
Methods with intermediaries	**1. Often**	**2. Sometimes**	**3. Rarely**	**4. Never**	**5. Do not know/NA**
g. Standalone HISP or HISP provided by a third party that enables secure messaging (such as DIRECT)	☐	☐	☐	☐	☐
h. Community (regional, state, or local) health information exchange organization (HIO). *NOT local proprietary, enterprise network*	☐	☐	☐	☐	☐
i. Single EHR vendor network (use your EHR vendor's network that enables connection to vendor's other users such as Epic's Care Everywhere)	☐	☐	☐	☐	☐
j. Multi-EHR vendor networks, like CommonWell Health Alliance	☐	☐	☐	☐	☐
k. e-Health exchange	☐	☐	☐	☐	☐
l. Other_____	☐	☐	☐	☐	☐

11. When a patient transitions to another care setting or organization, to what extent does your hospital <u>electronically send (NOT eFax)</u> a summary of care record in a <u>structured format</u> (e.g. CCDA) to providers with whom you share patients?

	1. Electronically <u>Send</u> To…			2. Do not know/NA
	a. Most/All	b. Some	c. Few/None	
a. Other Hospitals *outside your system*	☐	☐	☐	☐
b. Ambulatory Care Providers *outside your system*	☐	☐	☐	☐
c. Long-term and Post-Acute Care Facilities	☐	☐	☐	☐
d. Behavioral Health Facilities	☐	☐	☐	☐

Querying information from outside providers or sources

12. Do providers at your hospital <u>query</u> electronically for patients' health information (e.g. medications, outside encounters) from sources <u>outside</u> of your organization or hospital system?

 a. ☐ Yes   b. ☐ No, but do have the capability   c. ☐ No, do not have capability   d. ☐ Do not know

Receive and Integrate patient health information

13. When a patient transitions from another care setting or organization <u>outside your hospital system</u>, how often does your hospital use the following methods to <u>RECEIVE</u> a summary of care record? *Please indicate how often each method is used across each row below.*

Methods without intermediaries	1. Often	2. Sometimes	3. Rarely	4. Never	5. Do not know/NA
a. Mail or fax	☐	☐	☐	☐	☐
b. eFax using EHR	☐	☐	☐	☐	☐
c. Provider portal for view only access to EHR system	☐	☐	☐	☐	☐
d. Interface connection between EHR systems (e.g. HL7 interface)	☐	☐	☐	☐	☐
e. Direct access to EHR (via remote or terminal access)	☐	☐	☐	☐	☐
f. Other_____	☐	☐	☐	☐	☐
Methods with Intermediaries	**1. Often**	**2. Sometimes**	**3. Rarely**	**4. Never**	**5. Do not know/NA**
g. Standalone HISP or HISP provided by a third party that enables secure messaging (such as DIRECT)	☐	☐	☐	☐	☐
h. Community (regional, state, or local) health information exchange organization (HIO). *NOT local proprietary, enterprise network*	☐	☐	☐	☐	☐
i. Single EHR vendor network (proprietary network that enables connection to vendor's other users)	☐	☐	☐	☐	☐
j Multi-EHR vendor networks, like CommonWell Health Alliance	☐	☐	☐	☐	☐
k. e-Health exchange	☐	☐	☐	☐	☐
l. Other_____	☐	☐	☐	☐	☐

14. Does your EHR integrate the information contained in summary of care records received <u>electronically (not eFax)</u> without the need for manual entry? *Note: This refers to the ability to add the information to the EHR without special effort (this does NOT refer to automatically adding data without provider review). This could be done using software to convert scanned documents into indexed, discrete data that can be integrated into EHR.*

 a. ☐ Yes, routinely   b. ☐ Yes, but not routinely   c. ☐ No   d. ☐ Do not know   e. ☐ NA

Availability and usage of data that is exchanged

15. Do providers at your hospital <u>routinely have</u> necessary clinical information available <u>electronically</u> (not e-Fax) from <u>outside</u> providers or sources when treating a patient that was seen by another health care provider/setting?

 a. ☐ Yes   b. ☐ No   c. ☐ Do not know

16a. How frequently do providers at your hospital <u>use</u> patient health information received <u>electronically (not e-Fax)</u> from <u>outside</u> providers or sources when treating a patient?

    1. ☐ Often   2. ☐ Sometimes   3. ☐ Rarely   4. ☐ Never   5. ☐ Do not know

16b. <u>If rarely or never used</u>, please indicate the reason(s) why. (Please check *all* that apply)

1. ☐ Information not always available when needed (e.g. not timely)
2. ☐ Do not trust accuracy of information
3. ☐ Information available but not integrated in EHR
4. ☐ Information available and integrated into EHR but not part of clinicians' workflow
5. ☐ Information not presented in a useful format (e.g. too much information, redundant, or unnecessary information)
6. ☐ Information that is specific and relevant is hard to find
7. ☐ Vocabulary and/or semantic representation differences limit use
8. ☐ Other_____

Participation in Networks

17. Which of the following health information networks does your hospital participate in (either directly or through your EHR or HIE vendor)?

a. ☐ CommonWell Health Alliance
b. ☐ Digital Bridge
c. ☐ DirectTrust
d. ☐ e-Health Exchange
e. ☐ Surescripts
f. ☐ Strategic Health Information Exchange Collaborative (SHIEC)/Patient Centered Data Home (PCDH)
g. ☐ Other_____
h. ☐ Do not participate in any networks (either via vendor or directly)
i. ☐ Do not know

18. Please indicate your level of participation in a state, regional, and/or local health information exchange (HIE) or health information organization (HIO). *<u>Note: This does not refer to a private, enterprise network.</u>*

a. ☐ HIE/HIO is operational in my area and we are participating and actively exchanging data in at least one HIE/HIO
b. ☐ HIE/HIO is operational in my area, but we are not participating
c. ☐ HIE/HIO is not operational in my area
d. ☐ Do not know

Barriers to exchange and interoperability

19. Which of the following issues has your hospital experienced when trying to <u>electronically</u> (not eFax) send, receive or find (query) patient health information to/from other care settings or organizations? (Please check *all* that apply)

Barriers related to electronically sending patient health information

   a. ☐ We lack the technical capability to electronically <u>send</u> patient health information to outside providers or other sources

   b. ☐ Providers we would like to electronically send patient health information to, do <u>not</u> have an EHR or other electronic system with capability to receive the information

   c. ☐ Providers we would like to electronically send patient health information to <u>have</u> an EHR; however, it lacks the technical capability to receive the information

   d. ☐ Difficult to locate the address of the provider to send the information (e.g. lack of provider directory)

   e. ☐ Many recipients of our electronic care summaries (e.g. CCDA) report that the information is not useful

   f. ☐ Cumbersome workflow to send (not eFax) the information from our EHR system

   g. ☐ The complexity of state and federal privacy and security regulations makes it difficult for us to determine whether it is permissible to electronically exchange patient health information

Barriers related to electronically receiving patient health information

   h. ☐ We lack the technical capability to electronically <u>receive</u> patient health information from outside providers or other sources

   i. ☐ Difficult to match or identify the correct patient between systems

   j. ☐ There are providers whom we share patients with that don't typically exchange patient data with us

Other barriers related to exchanging patient health information

   k. ☐ Experience greater challenges exchanging (e.g. sending/receiving data) across different vendor platforms

   l. ☐ We have to pay additional costs to send/receive data with care settings/organizations outside our system

   m. ☐ We had to develop customized interfaces in order to electronically exchange health information

        m1. If yes, approximately how many:_____

EHR System and IT Vendors

20. Does your IT Department currently support an infrastructure for two factor authentication (e.g. tokens or biometrics)?

   a. ☐ Yes   b. ☐ No   c. ☐ Do not know

21. Do you possess an EHR system that has been certified? *Certified refers to meeting federal requirements per the Office of the National Coordinator for Health Information Technology (ONC). Certified EHRs are necessary to meet the objectives of Meaningful Use; however, certified EHRs can be used by all hospitals regardless of whether they participate in that program. If unsure, see if your system meets the requirements here: https://chpl.healthit.gov/#/search*

   a. ☐ Yes   b. ☐ No   c. ☐ Do not know

22. Which vendor below provides your <u>primary inpatient</u> EMR/EHR system? (Please check only one)
"Primary" is defined as the system that is used for the largest number of patients or the system in which you have made the single largest investment. Please answer based on vendor name rather than product.

a. ☐ Allscripts/Eclipsys   g. ☐ Meditech   m. ☐ NextGen

b. ☐ Epic   h. ☐ Self-developed   n. ☐ Healthland

c. ☐ McKesson   i. ☐ Cerner   o. ☐ Athenahealth

d. ☐ Evident   j. ☐ Allscripts   p. ☐ Health Care Systems

e. ☐ CPSI   k. ☐ QuadraMed   q. ☐ Other (please specify) _____

f. ☐ MEDHOST   l. ☐ Prognosis   r. ☐ Would prefer not to disclose EHR vendor

23. Overall, how satisfied or dissatisfied are you with your EHR system?

a. ☐ Very satisfied   d. ☐ Very dissatisfied

b. ☐ Somewhat satisfied   e. ☐ Neither satisfied nor dissatisfied

c. ☐ Somewhat dissatisfied

24. When does your hospital expect to complete the switch to a 2015 certified EHR system? *This refers to fully implementing the 2015 certified EHR system.*

a. ☐ We have already switched to a 2015 edition of certified EHR

b. ☐ Between January 1st, 2018 and June 30th, 2018

c. ☐ After July 1st, 2018

d. ☐ Uncertain

e. ☐ Never

25. What changes, if any, are you planning for your <u>primary inpatient</u> EMR/EHR system within the next 18 months? (Please check *all* that apply)

a. ☐ Initial deployment

b. ☐ Major change in vendor

c. ☐ Change from enterprise architecture to best-of-breed

d. ☐ Change from best-of-breed to enterprise architecture

e. ☐ Optimizing functionality of new releases

f. ☐ Significant additional functionalities

g. ☐ Do not know

h. ☐ No major changes planned

26a. Do you use the same primary inpatient EHR/EMR system vendor (noted above) for your <u>primary outpatient</u> EMR/EHR system? *"Primary" is defined as the system that is used for the largest number of patients or the system in which you have made the single largest investment. Please answer based on vendor name rather than product.*

1. ☐ Yes, share single instance (skip to 27)

2. ☐ Yes, but do not share the single instance (proceed to 26b)

3. ☐ No (proceed to 26b)

4. ☐ Do not know (skip to 27)

5. ☐ NA (skip to 27)

26b. Is patient health information electronically exchanged or made electronically available between your primary inpatient and outpatient systems so that data is easily available to clinicians?

1. ☐ Yes   2. ☐ No   3. ☐ Do not know

27.   **What are your primary challenge(s) in implementing and using an EMR/EHR system that meets the federal requirements for meaningful use? (Please check *all* that apply)**

a.   ☐ Upfront capital costs/lack of access to capital to install systems

b.   ☐ Ongoing cost of maintaining and upgrading systems

c.   ☐ Obtaining physician cooperation

d.   ☐ Obtaining other staff cooperation

e.   ☐ Concerns about security or liability for privacy breaches

f.   ☐ Uncertainty about certification requirements

g.   ☐ Limited vendor capacity

h.   ☐ Lack of adequate IT personnel in hospital to support implementation/maintenance

i.   ☐ Challenge/complexity of meeting all meaningful use criteria within implementation timeframe

j.   ☐ Pace and extent of other regulatory requirement changes

k.   ☐ Other (specify) _____

28.   **Please indicate whether you have used electronic clinical data from the EHR or other electronic system in your hospital to: (Please check *all* that apply)**

a.   ☐ Create a dashboard with measures of organizational performance

b.   ☐ Create a dashboard with measures of unit-level performance

c.   ☐ Create individual provider performance profiles

d.   ☐ Create an approach for clinicians to query the data

e.   ☐ Assess adherence to clinical practice guidelines

f.   ☐ Identify care gaps for specific patient populations

g.   ☐ Generate reports to inform strategic planning

h.   ☐ Support a continuous quality improvement process

i.   ☐ Monitor patient safety (e.g., adverse drug events)

j.   ☐ Identify high risk patients for follow-up care using algorithm or other tools

k.   ☐ None of the above

29.   **Thank you for your cooperation in completing this survey. If you are not the CIO, or person responsible for information technology, has he or she reviewed your answers to this survey?**

a.   ☐ Yes   b. ☐ No

_____
Respondent Name (please print)   Circle CIO or Print Title if other   (Area Code) Telephone #

_____/_____/_____   _____   _____
Date of Completion   Name of CIO (if other than respondent)   Email Address

NOTE: PLEASE PHOTOCOPY THIS INFORMATION FOR YOUR HOSPITAL FILE BEFORE RETURNING THE ORIGINAL FORM TO THE AMERICAN HOSPITAL ASSOCIATION.
THANK YOU.

Definition

***Question 11 – Continuous Clinical Document Architecture* (CCDA)** Continuous clinical document architecture is an XML-based markup standard intended to specify the encoding, structure, and semantic of clinical document for exchange.