2019 AHA Annual Survey Information Technology Supplement

American Hospital Association™

Advancing Health in America

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:**

(Yes means it has completely replaced paper record for the function in all units where applicable.)	(1) Yes	(2) No	(3) Do not know
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	☐	☐	☐

(Yes means it has completely replaced paper record for the function in all units where applicable.)	**(1)** **Yes**	**(2)** **No**	**(3)** **Do not know**

Decision Support

	(1) Yes	(2) No	(3) Do not know
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)	☐	☐	☐

Other Functionalities

	(1) Yes	(2) No	(3) Do not know
a. Bar Coding or Radio Frequency Identification (RFID) for Closed-loop Medication Tracking	☐	☐	☐
b. Bar coding or Radio Frequency (RFID) for supply chain management	☐	☐	☐
c. Telehealth	☐	☐	☐
d. Remote patient monitoring	☐	☐	☐

Prescribing Controlled Substances

2. Is your hospital enabled for electronic prescribing of controlled substances (EPCS)?

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

Patient Engagement

3. Are patients who receive <u>inpatient</u> care provided by your hospital able to do the following:
(Check "Yes" only if the functionality has been "turned on" and is fully implemented and available to patients.)

	(1) Yes	(2) No	(3) Do not know
a. View their health/medical information online in your portal	☐	☐	☐
b. Download health medical information from their medical record from your portal	☐	☐	☐
c. Import their medical records from other organizations into your portal	☐	☐	☐
d. Electronically transmit (send) health/medical information to a third party from your portal	☐	☐	☐
e. Request an amendment to change/update their medical record online	☐	☐	☐
f. Designate family member or caregiver to access health/medical information on behalf of the patient (e.g., proxy access)	☐	☐	☐
g. View their inpatient clinical notes (e.g., discharge summary) in their portal	☐	☐	☐
h. Access their medical information using applications (apps) configured to meet the application programming interfaces (API) specifications in your EHR	☐	☐	☐
i. Pay bills online	☐	☐	☐

4a. Does your hospital provide outpatient care to patients?

Note: Outpatient care refers to both hospital-based and satellite outpatient departments/sites.

  1. ☐ *Yes (go to 4b)*
  2. ☐ *No (skip to #5)*

4b. Is there more than one primary EMR/EHR system in use across your outpatient site(s)?

  1. ☐ Yes
  2. ☐ No

4c. To what extent are patients who receive <u>outpatient care</u> provided by your hospital able to do the following: *(Check "Yes" only if the functionality has been "turned on" and is fully implemented and available to patients)*	(1) Yes, at <u>all</u> outpatient site(s)	(2) Yes, across <u>some</u> outpatient site(s)	(3) No, across <u>none</u> of the outpatient site(s)	(4) Do not know
1. View their health/medical information online in their portal	☐	☐	☐	☐
2. Download health/medical information from their medical record from your portal	☐	☐	☐	☐
3 .Import their medical records from other organizations into your portal	☐	☐	☐	☐
4. Electronically transmit (send) health/medical information to a third party from your portal	☐	☐	☐	☐
5. Request an amendment to change/update their medical record online	☐	☐	☐	☐
6. Designate family member or caregiver to access their health/medical information on behalf of the patient (e.g., proxy access)	☐	☐	☐	☐
7. View their outpatient clinical notes (e.g., visit notes including consultation, progress, history and physical) in their portal	☐	☐	☐	☐
8. Access their health/medical information using applications (apps) configured to meet the application programming interfaces (API) specifications in your EHR	☐	☐	☐	☐
9. Submit patient-generated data (e.g., blood glucose, weight)	☐	☐	☐	☐
10. Send/receive secure message with providers	☐	☐	☐	☐
11. Pay bills online	☐	☐	☐	☐
12. Request refills for prescriptions online	☐	☐	☐	☐
13. Schedule appointments online	☐	☐	☐	☐

Provider Burden related to Reporting and Documentation

5. **What are some of the challenges your hospital has experienced when trying to submit health information to public health agencies to meet CMS reporting requirements for Promoting Interoperability Program? (Please check *all* that apply)**

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

   b. ☐ Public health agencies lack the capacity (e.g., technical, staffing) to electronically receive the information

   c. ☐ We lack the capacity (e.g., technical, staffing) to electronically send the information

   d. ☐ Difficulty extracting relevant information from EHR

   e. ☐ Interface-related issues (e.g., costs, complexity) make it difficult to send the information

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

   g. ☐ Other_____

   h. ☐ NA (e.g., not participating in CMS Promoting Interoperability Program)

   I. ☐ Have not experienced any major challenges

6a. 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
1. Physician-Specific electronic clinical quality measures (eCQMs)	☐	☐	☐	☐
2. Hospital-specific eCQMS	☐	☐	☐	☐

6b. What barriers—if any—has your hospital experienced in the transition from manual to fully or primarily automated reporting? (Please check *all* that apply)

1. ☐ Lack IT staff needed to generate reports
2. ☐ EHR does not possess capability to automatically generate measures
3. ☐ EHR data not mapping correctly, leading to missing or inaccurate information
4. ☐ Poor EHR usability or design issues, leading to missing or inaccurate information
5. ☐ Poor EHR data quality that requires manual correction
6. ☐ Difficulty extracting data from EHR
7. ☐ Problems with clinical workflow leading to missing data or incorrect information being collected
8. ☐ Changing requirements make it difficult to automate reporting
9. ☐ Difficulty aggregating data from multiple EHR systems
10. ☐ Limited funds
11. ☐ Other_____
12. ☐ NA
13. ☐ Already generate measures using fully or primarily automated processes
14. ☐ Do not know

7. Does your EHR system have the capability to export <u>multiple</u> records from its system? *Sometimes referred to as "bulk" export, this functionality enables analytics and reporting, population management, or switching EHR systems.*

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

8a. Does your hospital receive or have access to measures from your EHR vendor that report the amount of time clinicians spend completing documentation? Such measures typically use EHR audit log data.

1. ☐ Yes (go to 8b)   2. ☐ No (go to 9)   3. ☐ Do not know (go to 9)   4. ☐ NA (go to 9)

8b. How are these data used?

1. ☐ Vendor product improvement and troubleshooting
2. ☐ Identify providers in need of training and support
3. ☐ Provider burden reduction initiatives
4. ☐ Performance/efficiency monitoring of clinicians
5. ☐ Identify areas to improve clinical workflow
6. ☐ Other_____

Participation in health information exchange networks

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

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

10. Which of the following <u>national</u> health information exchange networks does your hospital currently actively participate in (i.e., operational exchange)? Check all that apply.

National networks that enable record location and exchange <u>across</u> users of different EHRs vendors

a. ☐ CommonWell Health Alliance

b. ☐ e-Health Exchange (operated by Sequoia Project)

c. ☐ Strategic Health Information Exchange Collaborative (SHIEC)/Patient Centered Data Home (PCDH)

d. ☐ Carequality (network-to-network trust/governance framework operated by Sequoia Project)

Health Information service providers (HISPs) supporting messaging via DIRECT protocol

e. ☐ DirectTrust

f. ☐ EHR vendor-based network that enables record location and exchange <u>within</u> the EHR vendor's network of users (e.g., Epic's Care Everywhere)

g. ☐ Other national health information exchange network_____

h. ☐ Do not participate in any national health information exchange networks (either via vendor or directly)

i. ☐ Do not know

Querying information from outside providers or sources

11a. Does 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? *Note: Hospitals that auto-query should respond "Yes"*

1. ☐ Yes (go to b)   2. ☐ No, but have the capability (go to 12)   3. ☐ No, do not have capability (go to 12)   4. ☐ Do not know (go to 12)

11b. **How often are the following electronic methods used to <u>search for (e.g., query or auto-query) and view</u> patient health information from <u>sources outside your organization or hospital system</u>?** *Please indicate how often each method is used across each row below.*

Electronic Methods	1. Often	2. Sometimes	3. Rarely	4. Never	5. Do not know/NA
a. Provider portals that allow you to view records in another organizations' EHR system	☐	☐	☐	☐	☐
b. Interface connection between EHR systems (e.g., HL7 interface)	☐	☐	☐	☐	☐
c. Access to other organizations' EHR system using login credentials	☐	☐	☐	☐	☐
d. Regional, state, or local health information exchange organization (HIE/HIO). *NOT local proprietary, enterprise network*	☐	☐	☐	☐	☐
e. EHR vendor-based network that enables record location within the network (e.g., Care Everywhere)	☐	☐	☐	☐	☐
f. EHR connection to national networks that enable record location across EHRs in different networks (e.g., Commonwell, e-health exchange, Carequality).	☐	☐	☐	☐	☐
g. Other electronic_____	☐	☐	☐	☐	☐

Sending patient health information

12. When a patient transitions to another care setting <u>outside of your organization or hospital system</u>, how often are 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 portals that allow outside organization to view records in your EHR system	☐	☐	☐	☐	☐
d. Interface connection between EHR systems (e.g., HL7 interface)	☐	☐	☐	☐	☐
e. Login credentials that allow access to your EHR	☐	☐	☐	☐	☐
f. Other_____	☐	☐	☐	☐	☐
Methods with intermediaries	**1 Often**	**2 Sometimes**	**3 Rarely**	**4 Never**	**5 Do not know/NA**
g. HISPs that enable messaging via DIRECT protocol	☐	☐	☐	☐	☐
h. Regional, state, or local health information exchange organization (HIE/HIO). *NOT local proprietary, enterprise network*	☐	☐	☐	☐	☐
i. EHR vendor-based network that enables exchange with vendor's other users. (e.g., Epic's Care Everywhere)	☐	☐	☐	☐	☐
j. National networks that enable exchange across <u>different</u> EHR vendors (e.g., Commonwell, e-health exchange, Carequality)	☐	☐	☐	☐	☐
k. Other_____	☐	☐	☐	☐	☐

Receive and Integrate patient health information

13. When a patient transitions from another care setting <u>outside your organization or 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 portals that allow you to view records in another organizations' EHR system	☐	☐	☐	☐	☐
d. Interface connection between EHR systems (e.g., HL7 interface)	☐	☐	☐	☐	☐
e. Access to other organizations' EHR system using login credentials	☐	☐	☐	☐	☐
f. Other_____	☐	☐	☐	☐	☐
Methods with intermediaries	**1 Often**	**2 Sometimes**	**3 Rarely**	**4 Never**	**5 Do not know/NA**
g. HISPs that enable messaging via DIRECT protocol	☐	☐	☐	☐	☐
h. Regional, state, or local health information exchange organization (HIE/HIO). *NOT local proprietary, enterprise network*	☐	☐	☐	☐	☐
i. EHR vendor-based network that enables exchange with vendor's other users. (e.g., Epic's Care Everywhere)	☐	☐	☐	☐	☐
j. National networks that enable exchange across <u>different</u> EHR vendors (e.g., Commonwell, e-health exchange, Carequality)	☑	☐	☐	☐	☐
k. Other_____	☐	☐	☐	☐	☐

14. Does your EHR integrate the information contained in summary of care records received electronically (not eFax) without the need for manual entry? *Note: This refers to the ability to add or incorporate 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/included in EHR.*

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

Electronic Notifications

15a. When a patient visits your Emergency Department (ED), do you routinely provide electronic notification to the patient's primary care physician?

1. ☐ Yes 2. ☐ No, but have the capability 3. ☐ No, don't have the capability 4. ☐ Don't know 5. ☐ Don't have ED

  15b. If yes, are electronic notifications provided to primary care physicians below? (Check all that apply)

   1. ☐ Inside the system 2. ☐ Outside the System 3. ☐ Do not know

Availability and usage of data that is exchanged

16. When treating a patient that was seen by a provider outside your organization or hospital system, 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

17a. 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
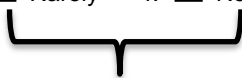
17b. <u>If rarely or never used</u>, please indicate the reason(s) why. (Please check *all* that apply)

1. ☐ Information not always available when needed (e.g., not timely)
2. ☐ Information is not trusted
3. ☐ Information available but not within EHR
4. ☐ Information available within 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. ☐ External data uses different standards (e.g., vocabulary and/or semantic representation differs) making it difficult to use
8. ☐ Other_____

Barriers to exchange and interoperability

18. 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 organizations or hospital systems? (Please check *all* that apply)

Barriers related to electronically <u>sending</u> 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 <u>receiving</u> 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 outside organizations/hospital systems
m. ☐ We had to develop customized interfaces in order to exchange (e.g., send/receive) data with outside organizations/hospital systems

EHR System and IT Vendors

19. **Does your hospital use 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

20. **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   g. ☐ Harris Healthcare/QuadraMed   l. ☐ Other (please specify):

                                                                       _____

    b. ☐ Athenahealth   h. ☐ McKesson   m. ☐ Would prefer not to disclose EHR vendor

    c. ☐ Azalea Health/ Prognosis   i. ☐ MEDHOST

    d. ☐ Cerner   j. ☐ Meditech

    e. ☐ CPSI/Evident   k. ☐ Self-developed

    f. ☐ Epic

21. **Overall, how satisfied or dissatisfied are you with your <u>primary </u>inpatient EMR/EHR system?**

    a. ☐ Very satisfied   d. ☐ Very dissatisfied

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

    c. ☐ Somewhat dissatisfied

22. **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. ☐ Completed switch to 2015 certified EHR system

    b. ☐ Implementation of 2015 certified EHR system is in progress

    c. ☐ Switch to 2015 certified EHR system is planned

    d. ☐ Switch to 2015 certified EHR system is not planned

23. **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. ☐ Vendor switch

    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

24a. **Do you use the same primary inpatient EMR/EHR 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 25)
2. ☐ Yes, but do not share the single instance/version (proceed to 24b)
3. ☐ No (proceed to 24b)
4. ☐ Do not know (skip to 25)
5. ☐ NA (skip to 25)

24b. **Is patient health information electronically exchanged or made electronically available between your primary inpatient and outpatient EHR systems so that data is easily available to clinicians across care settings?**

1. ☐ Yes   2. ☐ No   3. ☐ Do not know

25. **What are your primary challenge(s) in implementing and using an EMR/EHR system that meets requirements for the Promoting Interoperability (PI) program?** (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 PI program criteria within implementation timeframe
j. ☐ Pace and extent of other regulatory requirement changes
k. ☐ Other (specify) _____

26. 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

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THANK YOU.