2018 AHA Annual Survey Information Technology Supplement

American Hospital Association™

Advancing Health in America

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			
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			
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

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

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

2b.How do prescribers or their delegates in your hospital check your state's Prescription Drug Monitoring Program (PDMP)?

1. ☐ Within hospital's EHR systems (continue to 2c)

2. ☐ Outside of hospital's EHR systems (e.g. PDMP secure web portal or other external application) (skip to #3)

3. ☐ Do not know (skip to #3)

4. ☐ NA   (skip to #3)

2c. Does your hospital's EHR system integrate data retrieved from your state's PDMP? *Note: Integrate refers to incorporating data without the need for manual entry.*

a. ☐ Yes   b. ☐ No   c. ☐ Do not know

2d. Are prescribers or delegates at your hospital able to check your state's PDMP via single sign-on (SSO)?
Note: Single sign-on does not require an additional login or password to access the PDMP

a. ☐ Yes   b. ☐ No   c. ☐ Do not know

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 medical record	☐	☐	☐
c. Import their medical records from other organizations into your portal	☐	☐	☐
d. Electronically transmit (send) medical information to a third party	☐	☐	☐
e. Request an amendment to change/update their medical record online	☐	☐	☐
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. View their clinical notes (e.g., complete notes written by provider) online	☐	☐	☐
m. Access their medical information using applications (apps) configured to meet the application programming interfaces (API) specifications in your EHR	☐	☐	☐

Provider Burden related to Reporting and Documentation

4. **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 (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 data 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 exchange

   g. ☐ Other_____

   h. ☐ NA (e.g., not participating in CMS EHR Incentive Program)

   i. ☐ Have not experienced any major challenges

5. **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. Physician-Specific electronic clinical quality measures (eCQMs)	☐	☐	☐	☐
b. Hospital-specific eCQMS	☐	☐	☐	☐

6. 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. ☐ Changing requirements make it difficult to automate reporting
   i. ☐ Difficulty aggregating data from multiple EHR systems
   j. ☐ Limited funds
   k. ☐ Other_____
   l. ☐ NA
   m. ☐ Already generate measures using fully or primarily automated processes
   n. ☐ 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 use your EHR or other IT system data (e.g., audit log data) to track the amount of time clinicians spend completing documentation?

   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
   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 participate in?

    a. ☐ CommonWell Health Alliance

    b. ☐ DirectTrust

    c. ☐ e-Health Exchange

    d. ☐ Sequoia Project's Carequality

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

    f. ☐ Surescripts

    g. ☐ Your EHR vendor's network which enables exchange with vendor's other users (e.g., Epic's Care Everywhere)

    h. ☐ Other national health information exchange network_____

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

    j. ☐ Do not know

Querying information from outside providers or sources

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

1.☐ Yes (go to b)   2.☐ No, but have the capability   3.☐ No, do not have capability   4.☐ Do not know
                     (go to 12)   (go to 12)   (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>providers outside your 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 to view records in another EHR system	☐	☐	☐	☐	☐
b. Interface connection between EHR systems (e.g. HL7 interface)	☐	☐	☐	☐	☐
c. Direct access to EHRs (via remote or terminal access)	☐	☐	☐	☐	☐
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 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 portals to view records in another 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. 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 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 portals to view records in another 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. 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 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_____

Barriers to exchange and interoperability

17. 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

EHR System and IT Vendors

18.   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

19. **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   m. ☐ Other (please specify):
    _____

    b. ☐ Athenahealth   h. ☐ Healthland

    c. ☐ Azalea Health/ Prognosis   i. ☐ McKesson   n. ☐ Would prefer not to disclose EHR vendor

    d. ☐ Cerner   j. ☐ MEDHOST

    e. ☐ CPSI/Evident   k. ☐ Meditech

    f. ☐ Epic   l. ☐ Self-developed

20. **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

21. **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, 2019 and June 30th, 2019

    c. ☐ Between July 1st, 2019 and December 31st, 2019

    d. ☐ After January 1st, 2020

    e. ☐ Never

    f. ☐ Uncertain

22. **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

23a. **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 24)

    2. ☐ Yes, but do not share the single instance (proceed to 23b)

    3. ☐ No (proceed to 23b)

    4. ☐ Do not know (skip to 24)

    5. ☐ NA (skip to 24)

23b. 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

24. 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 meaningful use criteria within implementation timeframe

j. ☐ Pace and extent of other regulatory requirement changes

k. ☐ Other (specify) _____

25. 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

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.