# AHA Annual Survey
# Information Technology Supplement™

2017 File Layout

AHA Data & Insights

The 2017 *AHA Annual Survey Information Technology Supplement™* database contains facility-level responses to a survey administered by AHA in partnership with the Office of the National Coordinator (ONC). The purpose of the survey is to measure the adoption and implementation of the United States Department of Health and Human Services *Promoting Interoperability* initiative. The main categories on the survey are computerized system capabilities; patient engagement; regulatory burden; querying information from outside providers or sources; interoperability barriers; and EHR systems and IT vendors.

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**AHA Data & Insights**

## 2017 AHA Annual Survey
## Information Technology Supplement File Layout

## Health Forum, LLC

Note: Key FOLLOWS each Question set

| Field Description | Database Field Name |
|---|---|
| AHA Identification Number | ID |
| Medicare Provider Number | MCRNUM |
| Hospital name | MNAME |
| Street Address | MLOCADDR |
| City | MLOCCITY |
| State | MSTATE |
| ZIP code | MLOCZIP |
| Total facility beds set up and staffed | BDTOT |
| Control/ownership | MCNTRL |

**Key**

**Government, nonfederal**
12 = State
13 = County
14 = City
15 = City-county
16 = Hospital district or authority

**Nongovernment, not-for-profit**
21 = Church operated
23 = Other

**Investor-owned, for-profit**
31 = Individual
32 = Partnership
33 = Corporation

**Government, federal**
41 = Air Force
42 = Army
43 = Navy
44 = Public Health Service other than 47
45 = Veterans Affairs
46 = Federal other than 41-45, 47-48
47 = Public Health Service Indian Service
48 = Department of Justice

| Field Description | Database Field Name |
|---|---|
| Primary service code | MSERV |

**Key**

10 = General medical and surgical

11 = Hospital unit of an institution (prison hospital, college infirmary, etc.)

12 = Hospital unit within a facility for persons with intellectual disabilities

13 = Surgical

22 = Psychiatric

33 = Tuberculosis and other respiratory diseases

41 = Cancer

42 = Heart

44 = Obstetrics and gynecology

45 = Eye, ear, nose and throat

46 = Rehabilitation

47 = Orthopedic

48 = Chronic disease

49 = Other specialty

50 = Children's general

51 = Children's hospital unit of an institution

52 = Children's psychiatric

53 = Children's tuberculosis and other respiratory diseases

55 = Children's eye, ear, nose and throat

56 = Children's rehabilitation

57 = Children's orthopedic

58 = Children's chronic disease

59 = Children's other specialty

62 = Intellectual disabilities

80 = Acute Long-Term Care

82 = Alcoholism and other chemical dependency

90 = Children's acute long-term

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| **Electronic Clinical Documentation** | | | |
| a. Physician notes | Q1_A1 | CSEDPN | Physician notes (doc.) |
| b. Nursing notes | Q1_B1 | CSEDNA | Nursing notes (doc.) |
| c. Problem lists | Q1_C1 | CSEDPL | Problem lists (doc.) |
| d. Medication lists | Q1_D1 | CSEDML | Medication lists (doc.) |
| e. Discharge summaries | Q1_E1 | CSEDDS | Discharge summaries (doc.) |
| f. Advanced directives (e.g. DNR) | Q1_F1 | CSEDAD | Advanced directives (doc.) |
| | | | |
| **Results viewing** | | | |
| a. Radiology images | Q1_A2 | CSRVRI | Radiology images (view) |
| b. Diagnostic test results (e.g. EKG report, Echo report) | Q1_B2 | CSRVDR | Diagnostic test results (view) |
| c. Diagnostic test images (e.g. EKG tracing) | Q1_C2 | CSRVDI | Diagnostic test images (view) |
| d. Consultant reports | Q1_D2 | CSRVCR | Consultant reports (view) |
| e. Laboratory tests | Q1_E2 | CSRVLR | Lab tests (view) |
| f. Radiology tests | Q1_F2 | CSRVRR | Radiology tests (view) |
| g. Consultation requests | Q1_G2 | CSRVCQ | Consultation requests (view) |
| | | | |
| **Computerized provider order entry** (Provider (e.g., MD, APN, NP) directly enters own orders that are transmitted electronically) | | | |
| a. Laboratory tests | Q1_A3 | CSCPLT | Laboratory tests |
| b. Radiology tests | Q1_B3 | CSCPRT | Radiology tests |
| c. Medications | Q1_C3 | CSCPM | Medications |
| d. Consultation requests | Q1_D3 | CSCPCR | Consultation requests |
| e. Nursing orders | Q1_E3 | CSCPNO | Nursing orders |
| | | | |
| **Decision support** | | | |
| a. Clinical guidelines (e.g. Beta blockers post-MI, ASA in CAD) | Q1_A4 | CSDSCG | Clinical guidelines |
| b. Clinical reminders (e.g. pneumovax) | Q1_B4 | CSDSCR | Clinical reminders |
| c. Drug allergy alerts | Q1_C4 | CSDSDA | Drug allergy alerts |
| d. Drug-drug interaction alerts | Q1_D4 | CSDSDD | Drug-drug interaction alerts |
| e. Drug-Lab interaction alerts | Q1_E4 | CSDSDL | Drug-Lab interaction alerts |
| f. Drug dosing support (e.g. renal dose guidance) | Q1_F4 | CSDSDS | Drug dosing support |
| | | | |
| **Bar Coding or Radio Frequency Identification (RFID) for Closed-loop Medication Tracking** | | | |
| a. Medication administration | Q1_A5 | CSBCMA | Medication administration |
| b. Patient verification | Q1_B5 | CSBCPTV | Patient verification |
| c. Caregiver verification | Q1_C5 | CSBCCV | Caregiver verification |
| d. Pharmacy verification | Q1_D5 | CSBCPV | Pharmacy verification |
| | | | |
| **Other functionalities** | | | |
| a. Bar coding or Radio Frequency (RFID) for supply chain management | Q1_A6 | CSOFRF | Bar coding or Radio frequency (RFID) |
| b. Telehealth | Q1_B6 | CSOFT | Telehealth |
| c. Remote patient monitoring | Q1_C6 | CSRPM | Remote patient monitoring |

*Prescribing Controlled Substances*

**2. How do designated staff in your hospital check your state's Prescription Drug Monitoring Program (PDMP) data?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| How do staff check state's Prescription Drug Monitoring Program (PDMD) | Q2 | PDMPCHK | Checking state's Prescription Drug Monitoring Program (PDMD) |

*Patient Engagement*

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. View their health/medical information online | Q3_A | PEFVI | View their health/medical information online |
| b. Download information from their health/medical record | Q3_B | PEFDI | Download information from their health/medical record |
| c. Import their records from other organizations into their record in your EHR patient portal | Q3_C | PEFIR | Import 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 | Q3_D | PEFRS | Electronically transmit (send) transmission of care/referral summaries to a third party |
| e. Request an amendment to change/update their health/medical record | Q3_E | PEFRA | Request an amendment to change/update their health/medical record |
| f. Request refills for prescriptions online | Q3_F | PEFRP | Request refills for prescriptions online |
| g. Schedule appointments online | Q3_G | PEFSA | Schedule appointments online |
| h. Pay bills online | Q3_H | PEFPB | Pay bills online |
| i. Submit patient-generated data (e.g. blood, glucose, weight) | Q3_I | PEFSD | Submit patient-generated data |
| j. Secure messaging with providers | Q3_J | PEFSM | Secure messaging with providers |
| k. Designate family member or caregiver to access information on behalf of the patient (e.g., proxy access) | Q3_K | PEFPROX | Proxy access |
| l. Access their health information using any applications configured to meet the application programming interfaces (API) specifications in the EHR | Q3_L | PEFAPI | Access health information using applications configured to meet the 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?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Percentage of patients treated in hospital during calendar year 2017 who activated access to patient portal | Q4 | ACTPRTL | Percentage of patients treated in hospital during calendar year 2017 who activated access to patient portal |

*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? (check all that apply)**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. We do not know to which public health agencies our hospital should send the information to meet meaningful use requirements | Q5_A | CHPHDNK | 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 | Q5_B | CHPHNC | 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 exhange | Q5_C | CHPHDV | We use different vocabulary standards than the public health agency, making it difficult to exhange |
| d. Other - challenges | Q5_D | CHPHOTH | Other - challenges |
| Other description - challenges | Q5_D_OTH | CHPHOTH_DESC | Other description - challenges |
| e. NA - Have not experienced any major challenges | Q5_E | CHPHNA | 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?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. Medicare inpatient quality reporting | Q6_A | AGMIQR | Medicare inpatient quality reporting |
| b. Physician-specific electronic clinical quality measures (eCQMs) | Q6_B | AGMPCQM | Physician-specific electronic clinical quality measures (eCQMs) |
| c. Hospital-specific (eCQMS) | Q6_C | AGMHCQM | Hospital-specific (eCQMS) |

**Key**
1 = Fully or primarily automated
2 = Mix of automated and manual process
3 = Fully or primarily manual
4 = Do not know/NA

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. Lack of IT staff needed to generate reports | Q7_A | BARIT | Lack of IT staff needed to generate reports |
| b. EHR does not possess capability to automatically generate measures | Q7_B | BARCAP | EHR does not possess capability to automatically generate measures |
| c. EHR data not mapping correctly, leading to missing or innaccurate information | Q7_C | BARMAP | EHR data not mapping correctly, leading to missing or innaccurate information |
| d. Poor EHR usability or design issues, leading to missing or inaccurate information | Q7_D | BARDES | Poor EHR usability or design issues, leading to missing or inaccurate information |
| e. Poor EHR data quality that requires manual correction | Q7_E | BARQA | Poor EHR data quality that requires manual correction |
| f. Difficulty extracting data from EHR | Q7_F | BAREXT | Difficulty extracting data from EHR |
| g. Problems with clinical workflow leading to missing data or incorrect information being collected | Q7_G | BARWRKFL | Problems with clinical workflow leading to missing data or incorrect information being collected |
| h. Other | Q7_H | BAROTH | Other - barriers |
| Other description - barriers | Q7_H_OTH | BAROTH_DESC | Other description - barriers |
| i. NA (e.g. generate measures using fully or primarily automated processes) | Q7_I | BARNA | NA (e.g. generate measures using fully or primarily automated processes) |
| j. Do not know - barriers | Q7_J | BARDNK | Do not know - barriers |

**Key**
1 = Yes

**8. Does your EHR system have the capability to export multiple records from its system?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| EHR system able to export multiple records from system | Q8 | EXPMREC | EHR system able to export multiple records from system |

**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?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Use of EHR or other IT systems to track time clinicians spend completing documentation | Q9a | TRKDOC | Use of EHR or other IT systems to track time clinicians spend completing documentation |

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| EHR or other IT systems used to track time clinicians spend completing documentation - data uses | Q9b | TRKDOCUSE | EHR or other IT systems used to track time clinicians spend completing documentation - data uses |

*Sending patient health information*

**10. When a patient transitions to another care setting organization outside your hospital system, how often does your hospital use the following methods to SEND a summary of care record?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| **Methods without intermediaries** | | | |
| a. Mail or fax | Q10_A | MAILSND | Mail or fax (send) |
| b. eFax using EHR | Q10_B | EFAXSND | eFax using EHR (send) |
| c. Provider portal for view only access to EHR system | Q10_C | PORTSND | Provider portal for view only access to EHR system (send) |
| d. Interface connection between EHR systems (e.g. HL7 interface) | Q10_D | INTCONSND | Interface connection between EHR systems (e.g. HL7 interface) (send) |
| e. Direct access to EHRs (via remote or terminal access) | Q10_E | DIRACCSND | Direct access to EHRs (via remote or terminal access) (send) |
| f.  Other methods without intermediaries | Q10_F | OTHNISND | Other methods without intermediaries (send) |
| Other description | Q10_F_OTH | OTHNISND_DESC | Other description - methods without intermediaries (send) |

**Methods with intermediaries**

g. Standalone HISP or HISP provded by a third party that enables secure messaging (such as DIRECT)

h. Community (regional, state, or local) health information exchange organization (HIO).

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 methods with intermediaries

Other description

| | Survey Question | Database Field | Methods with intermediaries |
|---|---|---|---|
| | Q10_G | HISPSND | Standalone HISP or HISP provded by a third party that enables secure messaging (such as DIRECT) (send) |
| | Q10_H | HIOSND | Community (regional, state, or local) health information exchange organization (HIO). |
| | Q10_I | SEHRSND | Single EHR vendor network (use your EHR vendor's network that enables connection to vendor's other users such as Epic's Care Everywhere) (send) |
| | Q10_J | MEHRSND | Multi-EHR vendor networks, like CommonWell Health Alliance |
| | Q10_K | XCHSND | e-Health exchange (send) |
| | Q10_L | OTHISND | Other methods with intermediaries (send) |
| | Q10_L_OTH | OTHISND_DESC | Other description  - methods with intermediaries (send) |

**Key**
1 = Often
2 = Sometimes
3 = Rarely
4 = Never
5 = Do not know/NA

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| **a. Other Hospitals outside your system** | | | |
| Send | Q11_A1 | SFHOSNS | Other hospitals outside system (send) |
| Do not know/NA | Q11_A2 | SFHOSDNK | Other hospitals outside system (DNK) |
| **b. Ambulatory Care Providers outside your system** | | | |
| Send | Q11_B1 | SFAOSNS | Ambulatory outside system (send) |
| Do not know/NA | Q11_B2 | SFAOSDNK | Ambulatory outside system (DNK) |
| **c. Long-term and Post-Acute Care Facilities** | | | |
| Send | Q11_C1 | SFLTCFS | Long-term and Post-Acute Care Facilities (send) |
| Do not know/NA | Q11_C2 | SFLTCFDNK | Long-term and Post-Acute Care Facilities (DNK) |
| **d. Behavioral Health Facilities** | | | |
| Send | Q11_D1 | SFBHFS | Behavioral Health Facilities (send) |
| Do not know/NA | Q11_D2 | SFBHFDNK | Behavioral Health Facilities (DNK) |

*Querying information from outside providers or sources*

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Providers able to query electronically for a patient's health information from sources outside organization or system | Q12 | EQPHIOS | Providers able to query electronically for a patient health info from sources outside |

*Receive and integrate patient health information*

**13. When a patient transitions from another care setting organization outside your hospital system, how often does your hospital use the following methods to RECEIVE a summary of care record?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| **Methods without intermediaries** | | | |
| a. Mail or fax | Q13_A | MAILRCV | Mail or fax (receive) |
| b. eFax using EHR | Q13_B | EFAXRCV | eFax using EHR (receive) |
| c. Provider portal for view only access to EHR system | Q13_C | PORTRCV | Provider portal for view only access to EHR system (receive) |
| d. Interface connection between EHR systems (e.g. HL7 interface) | Q13_D | INTCONRCV | Interface connection between EHR systems (e.g. HL7 interface) (receive) |
| e. Direct access to EHRs (via remote or terminal access) | Q13_E | DIRACCRCV | Direct access to EHRs (via remote or terminal access) (receive) |
| f.  Other methods without intermediaries | Q13_F | OTHNIRCV | Other methods without intermediaries (receive) |
| Other description | Q13_F_OTH | OTHNIRCV_DESC | Other description - methods without intermediaries (receive) |
| **Methods with intermediaries** | | | **Methods with intermediaries** |
| g. Standalone HISP or HISP provded by a third party that enables secure messaging (such as DIRECT) | Q13_G | HISPRCV | Standalone HISP or HISP provded by a third party that enables secure messaging (such as DIRECT) (receive) |
| h. Community (regional, state, or local) health information exchange organization (HIO). | Q13_H | HIORCV | Community (regional, state, or local) health information exchange organization (HIO) (receive) |

| i. Single EHR vendor network (proprietary network that enables connection to vendor's other users) | Q13_I | SEHRRCV | Single EHR vendor network (proprietary network that enables connection to vendor's other users) (receive) |
| j. Multi-EHR vendor networks, like CommonWell Health Alliance | Q13_J | MEHRRCV | Multi-EHR vendor networks, like CommonWell Health Alliance (receive) |
| k. e-Health exchange | Q13_K | XCHRCV | e-Health exchange (receive) |
| L. Other methods with intermediaries | Q13_L | OTHIRCV | Other methods with intermediaries (receive) |
| Other description | Q13_L_OTH | OTHIRCV_DESC | Other description - methods with intermediaries (receive) |

**Key**
1 = Often
2 = Sometimes
3 = Rarely
4 = Never
5 = Do not know/NA

**14. Does your EHR integrate the information contained in summary of care records received electronically (not eFax) without the need for manual entry?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Integration of electronically received summary of care records | Q14 | SOCINT | Integration of electronically received summary of care records |

**Key**
1 = Yes, routinely
2 = Yes, but not routinely
3 = No
4 = Do not know
5 = NA

*Availability and usage of data that is exchanged*

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Clinical information available electronically from outside providers/sources | Q15 | CIAOUT | Clinical information available electronically from outside providers |

**Key**
1 = Yes
2 = No
3 = Do not know

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Use electronic patient health information from outside providers | Q16_A | PHIOUT | Use electronic patient health information from outside providers |

**16b. If rarely or never used, please indicate the reason(s) why. Check all that apply.**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| 1. Information not always available when needed | Q16_B1 | PHI_INFONA | Not available when needed (PHI) |
| 2. Do not trust accuracy of information | Q16_B2 | PHI_NOTRUST | Do not trust accuracy (PHI) |
| 3. Information is available but not integrated into EHR | Q16_B3 | PHI_DIFF | Not integrated (PHI) |
| 4. Information available and integrated into EHR but not part of clinicians' workflow | Q16_B4 | PHI_NOVIEW | Not part of clinicians' workflow (PHI) |
| 5. Information not presented in a useful format (e.g. too much information, redundant, or unnecessary information) | Q16_B5 | PHI_FORMAT | Format not useful (PHI) |
| 6. Information that is specific and relevant is hard to find | Q16_B6 | PHI_CNTFND | Hard to find relevant information (PHI) |
| 7. Vocabulary and/or semantic representation differences limit use | Q16_B7 | PHI_VOCAB | Vocabulary differences limit use (PHI) |
| 8. Other | Q16_B8 | PHI_OTH | Other (PHI) |
| Other description | Q16_B8_OTH | PHI_OTH_DESC | Other (PHI) description |

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. CommonWell Health Alliance | Q17_A | CWHA | CommonWell Health Alliance |
| b. Digital Bridge | Q17_B | DGBDG | Digital Bridge |
| c. DirectTrust | Q17_C | DRTRST | DirectTrust |
| d. e-Health Exchange | Q17_D | HLTHXCH | e-Health Exchange |
| e. Surescripts | Q17_E | SRSCRPT | Surescripts |
| f. Strategic Health Information Exchange Collaborative (SHIEC)/Patient Centered Data Home (PCDH) | Q17_F | SHIEC | Strategic Health Information Exchange Collaborative (SHIEC)/Patient Centered Data Home (PCDH) |
| g. Other | Q17_G | OTHNET | Other health information network |
| Other description | Q17_G_OTH | OTHNET_DESC | Other health information network description |

| | | | Do not participate in any networks (either via vendor or |
|---|---|---|---|
| h. Do not participate in any networks (either via vendor or directly) | Q17_H | NETNO | directly) |
| i. Do not know | Q17_I | NETDNK | Do not know (health information network) |

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**Key**

1 = Yes

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**18. Please indicate your level of participation in a state, regional, and/or local health information exchange (HIE) or health information organization (HIO)**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Level of HIE or HIO participation | Q18 | RHIO_LVL1 | Level of HIE or HIO participation |

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**Key**

1 = HIE/HIO is operational in my area and we are participating and actively exchanging data in at least one HIE/RHIO

2 = HIE/HIO is operational in my area but we are not participating

3 = HIE/HIO is not operational in my area

4 = Do not know

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*Barriers to exchange and interoperability*

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

**Barriers related to electronically sending patient health information**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. We lack the technical capability to electronically send patient health information to outside providers or other sources | Q19_A | ESPHI | No technical capability to electronically send to outside providers |
| b. Providers we would like to electronically send patient health information to do not have an EHR or other electronic system with capability to receive the information | Q19_B | NPEHR | Providers do not have EHR |
| c. Providers we would like to electronically send patient health information to have an EHR; however, it lacks the technical capability to receive the information | Q19_C | PEHRNRI | Providers have EHR but lacks technical capability to receive information |
| d. Difficult to locate the address of the provider to send the information (e.g. lack of provider directory) | Q19_D | NOPA | Lack provider address |
| e. Many recipients of our electronic care summaries (e.g. CCDA) report that the information is not useful | Q19_E | NUECS | Information is not useful to recipients |
| f. Cumbersome workflow to send (not eFax) the information from our EHR system | Q19_F | CSEHR | Cumbersome workflow to send information from 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 exhange patient health information

| | Q19_G | COMREG | Complexity of privacy and security regulations |

**Barriers related to electronically receiving patient health information**

h. We lack the technical capability to electronically receive patient health information from outside providers or other sources

| | Q19_H | ERPHI | No technical capability to receive from outside providers |

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

| | Q19_I | NOIDP | Difficult to match/identify the correct patient between systems |

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

| | Q19_J | PRVNOEX | Some providers don't typically exchange patient data |

**Other barriers related to exhanging patient health information**

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

| | Q19_K | DIFVEND | Exchanging across different vendor platforms |

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

| | Q19_L | ADCOST | Pay additional costs to send/receive data |

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

| | Q19_M | CUSTINT | We had to develop customized interfaces in order to electronically exhange health information |

m1. If yes, how many?

| | Q19_M1 | CUSTINTN | If yes, how many customized interfaces? |

**Key**

1 =Yes

*EHR System and IT Vendors*

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
| --- | --- | --- | --- |
| IT supports two factor authentication | Q20 | IT_AUTH | Two factor authentication |

**Key**
1 = Yes
2 = No
3 = Do not know

**21. Do you possess an EHR system that has been certified?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Posses a certified system for meeting meaningful use requirements | Q21 | EMRHRCRT | Certified EHR for Meaningful Use |

**Key**
1 = Yes
2 = No
3 = Do not know

**22. Which vendor below provides your primary inpatient EHR/EMR 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 the vendor name rather than product.*

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Primary provider of inpatient EHR | Q22 | PIEMR | Primary inpatient EHR/EMR vendor |
| | Q22_OTH | PIEMRO | Primary inpatient EHR/EMR vendor - other |

**Key**
1 = Allscripts/Eclipsys
2 = Cerner
3 = eClinical works
4 = Eclipsys
5 = Epic
6 = GE
7 = McKesson
8 = MED3000
9 = Meditech
10 = NextGen
11 = QuadraMed
12 = Sage
13 = Siemens
14 = Self-developed
15 = Other (specify)
Other described
16 = Would prefer not to disclose
17 = CPSI
18 = HMS
19 = Healthland
20 = Vitera/Greenway
21 = Evident
22 = MEDHOST
23 = Allscripts
24 = Prognosis
25 = Athenahealth
26 = MedWorx
27 = Health Care System

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Satisfaction with EHR system | Q23 | SATISEHR | Satisfaction with EHR system |

**Key**

1 = Very satisfied
2 = Somewhat satisfied
3 = Neither satisfied nor dissatisfied
4 = Somewhat dissatisfied
5 = Very dissatisfied

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Expected completion of switch to 2015 certified EHR system | Q24 | CERTEHR | Expected completion of switch to 2015 certified EHR system |

**Key**
1 = We have already switched to a 2015 edition of a certified EHR
2 = Between January 1st, 2018 and June 30th, 2018
3 = After July 1st, 2018
4 = Uncertain
5 = Never

**25. What changes, if any, are you planning for your primary inpatient EMR/EHR system within the next 18 months?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. Initial deployment | Q25_A | CHNG_ID | Initial deployment |
| b. Major change in vendor | Q25_B | CHNG_VEN | Major change in vendor |
| c. Change from enterprise architecture to best-of-breed | Q25_C | CHG_ARCA | Enterprise architecture to best-of-breed |
| d. Change from best-of-breed to enterprise architecture | Q25_D | CHG_ARCB | Best-of-breed to enterprise architecture |
| e. Optimizing functionality of new releases | Q25_E | CHG_FCTNR | Optimizing functionality of new releases |
| f. Significant additional functionalities | Q25_F | CHNG_FUNC | Significant additional functionalities |
| g. Do not know | Q25_G | CHNG_UNKN | Changes Unknown |
| h. No major changes planned | Q25_H | CHNG_NUN | No major changes planned |

**Key**
1 = Yes

**26a. Do you use the same primary inpatient EHR/EMR system vendor (noted above) for your primary outpatient EMR/EHR system?**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Same primary inpatient EHR/EMR system vendor (noted above) for primary outpatient EMR/EHR system | Q26_A | SIOPV | Same primary inpatient/outpatient EHR/EMR system vendor |

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| Is patient health information electronically exchanged/avaliable between primary inpatient and outpatient systems so data are easily available to clinicians | Q26_B | PHIXCHG | Patient health information exchanged between primary inpatient and outpatient systems |

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

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. Upfront capital costs/lack of access to capital to install systems | Q27_A | FEDCST | Upfront capital costs, or lack of capital |
| b. On-going costs of maintaining and upgrading systems | Q27_B | FEDUS | On-going costs of maintaining/upgrading |
| c. Obtaining physician cooperation | Q27_C | FEDPHY | Obtaining physician cooperation |
| d. Obtaining other staff cooperation | Q27_D | FEDSTF | Obtaining other staff cooperation |
| e. Concerns about security or liability for privacy breaches | Q27_E | MNGFL_SEC | Concerns about security/liability for privacy breaches |
| f. Uncertainty about certification requirements | Q27_F | MNGFL_CERT | Uncertainty about certification process |
| g. Limited vendor capacity | Q27_G | MNGFL_VEN | Lack of vendor capacity |
| h. Lack of adequate IT personnel in hospital to support implementation/maintenance | Q27_H | MNGFL_IT | Lack adequate IT staff |
| i. Challenge/complexity of meeting all meaningful use criteria within implementation timeframe | Q27_I | MNGFL_TIME | Meeting all meaningful use criteria on time |
| j. Pace and extent of other regulatory requirement changes | Q27_J | MNGFL_REGS | Pace and extent of other regulatory requirement changes |
| k. Other specify | Q27_K | MNGFL_OTH | Other reason (MNGFL) |
| k. Other description | Q27_K_OTH | MNGFL_OTHD | Other reason specified (MNGFL) |

**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)**

| | Survey Question Number | Database Field Name | Expanded Field Name |
|---|---|---|---|
| a. Create a dashboard with measures of organizational performance | Q28_A | ECDMOP | Create a dashboard with measures of organizational performance |
| b. Create a dashboard with measures of unit-level performance | Q28_B | ECDMUP | Create a dashboard with measures of unit-level performance |
| c. Create individual provider performance profiles | Q28_C | ECDIPP | Create individual provider performance profiles |
| d. Create an approach for clinicians to query the data | Q28_D | ECDCQD | Create an approach for clinicians to query the data |
| e. Assess adherence to clinical practice guidelines | Q28_E | ECDICG | Assess adherence to clinical practice guidelines |
| f. Identify care gaps for specific patient populations | Q28_F | ECDCGP | Identify care gaps for specific patient populations |
| g. Generate reports to inform strategic planning | Q28_G | ECDISP | Generate reports to inform strategic planning |
| h. Support a continuous quality improvement process | Q28_H | ECDCQI | Support continuous quality improvement process |
| i. Monitor patient safety (e.g. adverse drug effects) | Q28_I | ECDMPS | Monitor patient safety |
| j. Identify high risk patients for follow-up care using algorithm or other tools | Q28_J | ECDHRP | Identify high risk patients for follow-up care using algorithm or other tools |
| k. None of the above | Q28_K | ECDNONE | None (ECD) |

**Key**
1 = Yes