

**Deleted Questions**

17. Estimate the approximate number of years you have used any electronic health record (EHR) system? Do not include billing record systems.

Never used an EHR system     Under 1 year     \_\_\_\_\_year(s)

39. Do you search for the following patient health information from sources outside your medical organization?	Yes	No
Lab results	<input type="checkbox"/>	<input type="checkbox"/>
Patient problem lists	<input type="checkbox"/>	<input type="checkbox"/>
Imaging reports	<input type="checkbox"/>	<input type="checkbox"/>
Medication lists	<input type="checkbox"/>	<input type="checkbox"/>
Medication allergy list	<input type="checkbox"/>	<input type="checkbox"/>
Discharge summaries	<input type="checkbox"/>	<input type="checkbox"/>
Vaccination history	<input type="checkbox"/>	<input type="checkbox"/>
Advance directives	<input type="checkbox"/>	<input type="checkbox"/>
Care plans	<input type="checkbox"/>	<input type="checkbox"/>

**Revised Content & Revised Questions**

**Current confidentiality language in the 2017 NEHRS is in black; revised language in the proposed 2018 NEHRS is in red**

The Cybersecurity Act of 2015 permits monitoring information systems for the purpose of protecting a network from hacking, denial of service attacks and other security vulnerabilities.<sup>1</sup> The software used for monitoring may scan information that is transiting, stored on, or processed by the system. If the information triggers a cyber threat indicator, the information may be intercepted and reviewed for cyber threats. The Cybersecurity Act specifies that the cyber threat indicator or defensive measure taken to remove the threat may be shared with others only after any information not directly related to a cybersecurity threat has been removed, including removal of personal information of a specific individual or information that identifies a specific individual. Monitoring under the Cybersecurity Act may be done by a system owner or another entity the system owner allows to monitor its network and operate defensive measures on its behalf.

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<sup>1</sup> “Monitor” means “to acquire, identify, or scan, or to possess, information that is stored on, processed by, or transiting an information system”; “information system” means “a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination or disposition of information”; “cyber threat indicator” means “information that is necessary to describe or identify security vulnerabilities of an information system, enable the exploitation of a security vulnerability, or unauthorized remote access or use of an information system”.

Revised Version

The Federal Cybersecurity Enhancement Act of 2015 allows software programs to scan information that is sent, stored on, or processed by government networks in order to protect the networks from hacking, denial of service attacks, and other security threats. If any information is suspicious, it may be reviewed for specific threats by computer network experts working for the government (or contractors or agents who have governmental authority to do so). Only information directly related to government network security is monitored. The Act further specifies that such information may only be used for the purpose of protecting information and information systems from cybersecurity risks.

**Current versions of the questions are in black; revised questions are in red**

Current Version

**12. If yes, from those new patients, which of the following types of payment do you accept?**

	Yes	No	Don't know
1. Private insurance capitated	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
2. Private insurance non-capitated	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
3. Medicare	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
4. Medicaid/CHIP	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
5. Workers' compensation	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
6. Self-pay	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
7. No charge	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

Revised Question 12 (Question 12 in the 2017 NEHRS questionnaire) combines the “capitated” and “non-capitated” categories into private insurance to reduce respondent burden.

**12. If yes, from those new patients, which of the following types of payment do you accept?**

	Yes	No	Don't know
1. Private insurance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
2. Medicare	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
3. Medicaid/CHIP	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
4. Workers' compensation	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
5. Self-pay	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
6. No charge	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

Current Version

20. Has your reporting location been recognized as a Patient Centered Medical Home (PCMH) by a state, a commercial health plan, or a national organization?

- 1 Yes                      2 No                      3 Don't know

21. Does the reporting location participate in an Accountable Care Organization (ACO) arrangement with Medicare or private insurers?

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- 1 Yes            2 No            3 Don't know

22. Does the reporting location participate in a Pay-for-Performance arrangement, where you can receive financial bonuses based on your performance?

- 1 Yes            2 No            3 Don't know

11. Do you participate in the Medicaid EHR Incentive Program (e.g. Meaningful Use Program)?

- 1 Yes            2 No            3 Don't know            4 Not applicable

Revised Version

Revised Question 17 amends questions above (Q20, 21 and 22 in the 2017 NEHRS and Q11 in the 2017 NEHRS Supplement non-respondent questionnaire) to assess physicians' participation in payment models/programs offered by the Center for Medicare & Medicaid's (CMS). These measures were refined and streamlined in the question below to reduce burdens on respondents.

17. Do you or your reporting location currently participate in any of the following activities or programs? Check all that apply.

- 1 Patient Centered Medical Home (PCMH)
- 2 Accountable Care Organization (ACO) arrangement with public or private insurers
- 3 Pay-for-Performance arrangement (P4P)
- 4 Medicaid EHR Incentive Program (e.g., Meaningful Use Program)

Current Version

12. Do you participate or plan to participate in the Merit-Based Incentive Payment System? Merit-Based Incentive Payment System, a new program for Medicare-participating physicians, will adjust payment based on performance and consolidate three programs: the Physician Quality Reporting System, the Physician Value-based Payment Modifier, and the Medicare EHR Incentive Program ("Meaningful Use").

- 1 Yes            2 No            3 Don't know            4 Not applicable

13. Do you participate or plan to participate in the Alternative Payment Model? Alternative Payment Models are new approaches to paying for medical care through Medicare that incentivize quality and value, including CMS Innovation Center model, Medicare Shared Savings Program, Health Care Quality Demonstration Program or Demonstration required by federal law.

- 1 Yes            2 No            3 Don't know            4 Not applicable

Revised Version

Revised Question 18 amends questions above (Q12 and 13 in the 2017 NEHRS Supplement health information exchange survey) to assess physicians' participation in programs offered by the Center for Medicare & Medicaid's (CMS). These measures were refined and streamlined in the question below to reduce burdens on respondents.

**18. Do you participate or plan to participate in the following Medicare programs? Check all that apply.**  
*Merit-Based Incentive Payment System will adjust payment based on performance. Advanced Alternative Payment Models are new approaches to paying for medical care that incentivize quality and value.*

- 1 Merit-Based Incentive Payment System
- 2 Advanced Alternative Payment Model
- 3 Not applicable

Current Version

19. Indicate whether the reporting location uses each of the computerized capabilities listed below. CHECK NO MORE THAN ONE BOX PER ROW. Does the reporting location use a computerized system to:		Yes	No	Don't know
BASIC COMPUTERIZED CAPABILITIES	Record patient history & demographic information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Record patient problem list?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Record patients' allergies and medications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Record clinical notes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	View lab results?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	View imaging reports?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SAFETY	Order prescriptions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are prescriptions sent electronically to the pharmacy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are warnings of drug interactions or contraindications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Order lab tests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Order radiology tests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Provide reminders for guideline-based interventions or screening tests?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PATIENT ENGAGEMENT	Reconcile lists of patient medications to identify the most accurate list?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Provide patients with clinical summaries for each visit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POPULATION MANAGEMENT	Exchange secure messages with patients?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Identify patients due for preventive or follow-up care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Provide data to generate lists of patients with particular health conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Provide data to create reports on clinical care measures for patients with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Revised Version

Revised Q22 amends questions above (Q19 in the 2017 NEHRS) to assess physicians' use of computerized system that are relevant to the evolving program goals of ONC, the sponsor of NEHRS. These measures were

refined and streamlined in the question below. Additionally, there are fewer number of items listed to reduce burdens on the respondents to reduce burdens on respondents.

<b>23. Does the reporting location use a computerized system to (CHECK NO MORE THAN ONE BOX PER ROW):</b>		<b>Yes</b>	<b>No</b>	<b>Don't know</b>
RECORDING INFORMATION	Record social determinants of health (e.g., employment, education)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Record behavioral determinants of health (e.g., tobacco use, physical activity, alcohol use)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
SAFETY	Order prescriptions?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Are prescriptions sent electronically to the pharmacy?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Are warnings of drug interactions or contraindications provided?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Order lab tests?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Order radiology tests?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Provide reminders for guideline-based interventions or screening tests?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
PATIENT ENGAGEMENT	Create educational resources tailored to the patients' specific conditions?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Exchange secure messages with patients?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
POPULATION MANAGEMENT	Generate lists of patients with particular health conditions?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Create reports on clinical care measures for patients with specific chronic conditions (e.g., HbA1c for diabetics)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
	Create shared care plans that are available across the clinical care team?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
QUALITY MEASUREMENT	Send clinical quality measures to public and private insurers (e.g., blood pressure control, HbA1c, smoking status)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

Current Version

36. Do you prescribe controlled substances?  
1 Yes    2 No (Skip to 38)    3 Don't know (Skip to 38)
37. Are prescriptions for controlled substances sent electronically to the pharmacy?  
1 Yes    2 No    3 Don't know

Revised Versions

Revised Question 27, 28 and 29 amend questions above (Q36 and 37 in the 2017 NEHRS questionnaire) to assess physicians' prescribing behavior relating to controlled substances, which reflect the current priorities of ONC. These measures were refined and streamlined in the following questions.

27. How frequently do you prescribe controlled substances?  
1 Often    2 Sometimes    3 Rarely    4 Never (Skip to 30)    4 Don't know (Skip to 30)

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28. How frequently are prescriptions for controlled substances sent electronically to the pharmacy?

- 1 Often      2 Sometimes      3 Rarely or Never      4 Don't know

New questions to obtain information on prescribing controlled substances and care of PDMP, given the current public health concerns regarding prescribing patterns.

29. How frequently do you or designated staff check your state's prescription drug monitoring program (PDMP) prior to prescribing a controlled substance to a patient for the first time?

- 1 Often (Go to 29a)      2 Sometimes (Go to 29a)      3 Rarely (Go to 29a)      4 Never (Skip to 30)  
5 Don't know (Skip to 30)

29a. How do you or your designated staff check your state's PDMP?

- 1 Use EHR system      2 Use system outside of EHR (e.g. PDMP portal or secure website)  
3 Don't know

28b. How easy or difficult is it to use your state's PDMP to find your patient's information?

- 1 Very easy      2 Somewhat easy      3 Somewhat difficult      4 Very difficult      5 Don't know

29c. When checking your state's PDMP, do you or designated staff typically request to view PDMP data from other states prior to prescribing a controlled substance for the first time?

- 1 Yes      2 No      3 Don't Know

29d. Have you done any of the following as a result of using the PDMP? Check all that apply.

- 1 Reduced or eliminated controlled substance prescriptions for a patient  
2 Changed controlled substance prescriptions to non-opioid pharmacologic (e.g., NSAIDs or acetaminophen) or non-pharmacologic therapy (e.g., exercise/physical therapy or CBT).  
3 Prescribe naloxone  
4 Refer additional treatment (e.g., substance abuse treatment, psychiatric or pain management)  
5 Confirm patients' misuse of prescriptions (e.g., engage in doctor shopping)  
6 Confirm appropriateness of treatment  
7 Assess pain and function of patient (e.g., PEG)  
8 Consult with other prescribers listed in PDMP report  
9 Consult and/or coordinate with other members of the care team

Current Version

38. Do you electronically search for your patient's health information from sources outside of your medical organization (e.g., remote access to other facility, health information exchange organization)?

- 1 Yes      2 No (Skip to 40)      3 Don't know (Skip to 40)

Revised Version

Revised Question 37 amends question above (Q38 in the 2017 NEHRS questionnaire) to assess measures on electronic exchange of patient health information as an evolving program goal of ONC. These measures were refined and streamlined in the question below.

Att A - Changes to 2017 NEHRS

37. When seeing a new patient or a patient who has previously seen another provider, do you electronically search or query for your patient’s health information from sources outside of your medical organization? This could include via remote or view only access to other facilities’ EHR or health information exchange organization.

- 1 Yes (Go to 37a)                      2 No (Skip to 38)                      3 Don’t know (Skip to 38)

New questions to understand what information the provider searches for from sources outside his/her medical organization are captured in Question 37a.

37a. Do you electronically search for the following patient health information from sources outside your medical organization?	Yes	No	Don’t Know
Progress/Consultation notes	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Vaccination/Immunization history	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Summary of care record	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3

Current Versions

31. Do you integrate summary of care records into your EHR without special effort like manual entry or scanning?

- 1 Yes                      2 No                      3 Don’t know                      4 Not applicable

32. Do you integrate any other type of patient health information into your EHR without special effort like manual entry or scanning?

- 1 Yes                      2 No                      3 Don’t know                      4 Not applicable

Revised Version

Revised Question 38 and 38a amend questions above (Q31 and 32 in the 2017 NEHRS questionnaire) to assess measures on electronic exchange of patient health information as an evolving program goal of ONC. These measures were refined and streamlined in the following questions.

38. Does your EHR system integrate any type of patient health information received electronically (not e-fax) without special effort like manual entry or scanning?

- 1 Yes (Go to 38a)    2 No (Skip to 39)    3 Don’t know (Skip to 39)    4 Not applicable (Skip to 39)

38a. Does your EHR system integrate summary of care records received electronically (not e-fax) without special effort like manual entry or scanning?

- 1 Yes                      2 No                      3 Don’t know                      4 Not applicable

Policy rationale for inclusion and modification of attitudinal items related to provider burden

Section 4001(a) of the 21st Century Cures Act (Public Law 114-255, 42 USC 201) directs the Department of Health and Human Services to develop a report outlining how the department could reduce regulatory and administrative burden related to the use of electronic health records (EHRs). The report must establish a goal with respect to the reduction of regulatory or administrative burdens (such as documentation requirements) relating to the use of EHRs as well as a strategy and recommendations for meeting those goals. ONC has been working with CMS on this issue and is developing this report. At this point, key sources of provider burden that

have been identified that will be targeted include: reduce the effort and time required for providers to record and document in EHRs (including responding to messages); reduce the effort and time required to meet regulatory reporting requirements; and improve the functionality and ease of using EHRs.

The National Electronic Health Record Survey (NEHRS) has measures that will be used to assess the amount of time physicians' spend on certain tasks associated with greater burden as well as their attitudes on sources of provider burden. This data will not only provide evidence in support of the ONC's mandated report, but will also serve as baseline measures that can be tracked over time.

Additionally, the 21st Century Cures Act calls for ONC to establish a HIT Advisory Committee (HITAC), a 25 member committee that will recommend policies to ONC's National Coordinator. This committee is responsible for supporting the adoption of plans and rules set forth as part of the 21st Century Cures Act, including the usability of EHRs. NEHRS data related to provider burden will help to inform the HITAC on the usability of EHRs for documenting patient care. The revision of questions which are 43, 45, 46, 47, 48 on the 2018 NEHRS and the addition of questions 20, 24, 24a, 24b, 24c, 43 and 44 help meet these goals. The process for developing the items and question revisions and additions are further explained below.

The process for developing the items related to provider burden and documentation (items 24, 24a, 24b, 24c, 43-48) consisted of the following steps:

1. Scanned the literature to identify potential existing survey items and key concepts to measure. In addition to several other studies, we found that a seminal mixed methods study was done in 2013 by RAND Health a division of RAND Corporation and funded by the American Medical Association. The study citation is: Friedberg, M. W., Chen, P. G., Van Busum, K. R., Aunon, F., Pham, C., Caloyeras, J., ... Tutty, M. (2014). Factors Affecting Physician Professional Satisfaction and Their Implications for Patient Care, Health Systems, and Health Policy. *Rand Health Quarterly*, 3(4), 1; PubMed ID: PMC5051918 . This study was among the first to identify the key role that EHRs and documentation played in contributing to physician burnout and dissatisfaction with their work; it used existing and new items. The EHR questions on the RAND Health study came from the Minimizing Error, Maximizing Outcomes (MEMO) survey (Linzer, M., L. B. Manwell, E. S. Williams, J. A. Bobula, R. L. Brown, A. B. ... Schwartz, M. D. (2009). Working Conditions in Primary Care: Physician Reactions and Care Quality. *Ann Intern Med*, 151(1), 28–36, W26–29.) and assessments made during the RAND Health survey pilot that used semi-structured qualitative interviews.
2. Interviewed subject matter experts (SME) to identify and evaluate concepts to measure. We interviewed Mark Friedberg the lead investigator on the RAND study, probing on the specific items and concepts that we should measure to assess provider burden as it related to EHR use. In addition, we interviewed physician and other clinician subject matter experts at ONC who are working on developing a framework and report on provider burden that will be submitted to Congress. These conversations supplemented the literature to help us identify some of the key concepts related to provider burden that were important from a policy perspective.
3. Adapted existing survey items to reduce burden and developed new survey items based upon qualitative study findings and discussions with subject matter experts. The RAND study did identify alternative measures to assessing provider; however, these consisted of asking a battery of questions, which was deemed too burdensome for our survey. Thus, we identified alternative means of assessing provider burden (based upon SME input) both quantitatively in terms of number of hours spent outside of



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the office to complete tasks that contribute to provider burden and physicians’ perceptions on the impact of those tasks on patient care. The RAND study and conversations with SMEs identified other concepts that are related to provider burden that would be important to measure as well (e.g. the use of templates to document, staff support to complete tasks, usability of EHRs to complete tasks). We adapted some items that were in the RAND study and others we created de novo based upon the qualitative study findings and conversations.

4. Solicited input on draft survey items from subject matter experts, physicians at ONC and NCHS, and the American Medical Association. Though these items were not formally cognitively tested, we shared the survey items with the RAND investigator (Mark Friedberg), physicians at ONCs and NCHS as well as the American Medical Association. We held conference calls with these parties to solicit their feedback; they provided input on whether they thought the questions would be good measures, the wording of the items, and the length of the items.

5. Edited survey items based upon feedback and shared final version with physicians and other staff at ONC, NCHS and American Medical Association.

Current Version

16. Please indicate whether these issues are barriers to electronic information exchange with providers outside your medical organization. Note: Information exchange refers to electronically sending, receiving, finding or integrating patient health information.

	Yes	No	Don’t know	Not applicable
Providers outside my medical organization cannot electronically exchange data with me.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
My practice would have to pay additional costs to electronically exchange data with providers outside my medical organization.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is cumbersome to use my EHR to electronically exchange data with providers outside my medical organization.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
I have to use multiple systems or portals to electronically exchange data with providers outside my medical organization.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is challenging to electronically exchange data with other providers who use a different EHR vendor.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is difficult to locate the address of the provider to electronically send patient health information.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
My practice is concerned about the privacy and security of health information that is electronically exchanged.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
The information that is electronically exchanged is not useful.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

Revised Version

Revised Question 43 amends question above (Q16 in the 2017 NEHRS Supplement health information exchange questionnaire) to assess new attitudinal measures regarding barriers to electronic information exchange with providers outside physician’s medical organization. These new attitudinal measures were refined and streamlined in the question below to reduce burdens on the respondents and will provide information needed to describe barriers physicians are experiencing.

43. Please indicate whether these issues are barriers to electronic information exchange with providers outside your medical organization.

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	Yes	No	Don't know	Not applicable
Providers in our referral network lack the capability to electronically exchange (e.g., no EHR system or HIE connection).	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
We have limited or no IT staff.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Electronic exchange involves incurring additional costs.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Electronic exchange involves using multiple systems or portals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Electronic exchange with providers using a different EHR vendor is challenging.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
The information that is electronically exchanged is not useful.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
It is difficult to locate the electronic address of providers.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
My practice may lose patients to other providers if we exchange information.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

Current Version

34. Within the last 30 days has your EHR system...	Yes	No	Not Applicable
Alerted you to a potential medication error?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Led to a potential medication error?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Inadvertently led you to select the wrong medication or lab order from a list?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Led to less effective communication during patient visits?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Made it difficult for you to find clinical content needed for medical decision making?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Increased the time spent documenting patient care?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Alerted you to critical lab values?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Reminded you to provide preventive care (e.g., vaccine, cancer screening)?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Reminded you to provide care that meets clinical guidelines for patients with chronic conditions?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Facilitated direct communication with a patient (e.g., email or secure messaging)?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Facilitated direct communication with other providers who are part of your patient care team?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Uploaded patient health data from self-monitoring devices (e.g., blood glucose readings)?	1 <input type="checkbox"/>	1 <input type="checkbox"/>	1 <input type="checkbox"/>
Enhanced overall patient care?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

Revised Versions

Att A – Changes to 2017 NEHRS

Questions 46 and 47 amend question above (Q34 in the 2017 NEHRS questionnaire). These attitudinal measures were refined and streamlined in the following questions to reduce burden on the respondents. These questions are supposed to address usability and whether the medical record system plays a role in enabling or hindering workflow related to documentation (a task associated with greater provider burden). A new item was added asking about documentation required for billing (last item of 47 below).

46. How easy or difficult is it to document clinical care using your medical record system?

- 1 Very easy    2 Somewhat easy    3 Somewhat difficult    4 Very difficult    5 Not applicable

47. Please indicate whether you agree or disagree with the following statements about using your medical record system.

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Not Applicable
The amount of time I spend documenting clinical care is appropriate.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
The amount of time I spend documenting clinical care does not reduce the time I spend with patients.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Additional documentation required solely for billing but not clinical purposes increases the overall amount of time I spend documenting clinical care.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**New Questions**

Question 20 was approved for prior NEHRS questionnaires (2010-2015) although it was deleted from the 2017 NEHRS. This question is added to the proposed 2018 NEHRS because ONC will continue to use this information as their primary source of reference. This question will also help in interpreting the responses to items 21, 46, 47 and 48.

20. What is the name of your primary EHR system? CHECK ONLY ONE BOX. IF OTHER IS CHECKED, PLEASE SPECIFY THE NAME.

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> 1 Allscripts      | <input type="checkbox"/> 6 e-MDs                | <input type="checkbox"/> 11 Practice Fusion          |
| <input type="checkbox"/> 2 Amazing Charts  | <input type="checkbox"/> 7 Epic                 | <input type="checkbox"/> 12 Sage/Vitera/<br>Greenway |
| <input type="checkbox"/> 3 athenahealth    | <input type="checkbox"/> 8 GE/Centricity        | <input type="checkbox"/> 13 Other, specify: _____    |
| <input type="checkbox"/> 4 Cerner          | <input type="checkbox"/> 9 Modernizing Medicine | <input type="checkbox"/> 14 Unknown                  |
| <input type="checkbox"/> 5 eClinical Works | <input type="checkbox"/> 10 NextGen             |  |

Question 21 was approved for the 2017 NEHRS Supplements (Q2 on the 2017 NEHRS Supplement health information exchange questionnaire) and is included on the 2018 NEHRS to help ONC understand physicians perceived satisfaction with EHR systems.

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

- 1 Very satisfied    2 Somewhat satisfied    3 Neither satisfied nor dissatisfied  
4 Somewhat dissatisfied    5 Very dissatisfied    6 Not applicable

**How specific items relate to provider burden**

Att A – Changes to 2017 NEHRS

Templates are a key means of documenting in the EHR system. Thus we have developed measures, with the input of ONC clinicians and staff from the American Medical Association on both the frequency of using and the ease of using templates. While customizing templates may make it easy for physicians to record information, it may make it more difficult for other users of the medical record to locate information, increasing burden. We have included measures of frequency and ease/difficulty of use in item 24.

Q24, 24a, 24b, and 24c were added to the proposed 2018 NEHRS to assess measures on the frequency and uses of computerized templates in EHR systems that are relevant to measuring progress towards the program goals of ONC.

24. How frequently do you use template-based notes in your EHR system? Template-based notes are generated through forms or pre-filled text in an EHR rather than free text alone.

- 1 Often (Go to 24a)   2 Sometimes (Go to 24a)   3 Rarely (Go to 24a)   4 Never (Skip to 25)
- 5 Don't know (Skip to 25)   6 Not Applicable (Skip to 25)

24a. To what extent do you customize your templates?

- 1 A great extent   2 Somewhat   3 Very little or not at all   4 Don't know

24b. How easy or difficult is it to locate information in template-based notes?

- 1 Very easy   2 Somewhat easy   3 Somewhat difficult   4 Very difficult

24c. How easy or difficult is it to locate information in free-text notes?

- 1 Very easy   2 Somewhat easy   3 Somewhat difficult   4 Very difficult

Questions 35 and 35a are added to the proposed 2018 NEHRS to assess measures on electronic exchange of patient health information, which reflect the current priorities of ONC. These questions will help inform ONC about the use of EHRs for sharing information with public health agencies and for other uses such as syndromic surveillance or immunization data.

35. Does your reporting location electronically send or receive patient health information with public health agencies? Public health agencies can include the CDC, state or local public health authorities.

- 1 Yes (Go to 35a)   2 No (Skip to 36)   3 Don't Know (Skip to 36)
- 4 Not applicable (Skip to 36)

35a. What types of information do you electronically send or receive? Check all that apply.

- 1 Syndromic surveillance data
- 2 Case reporting of reportable conditions
- 3 Immunization data
- 4 Public health registry data (e.g., cancer)

Question 39 is added to the proposed 2018 NEHRS to assess measures on electronic exchange of patient health information, which reflects the current priorities of ONC.

<p><b>39.</b> Do you reconcile the following types of clinical information electronically received from providers outside of your medical organization? Reconciling involves comparing a patient's information from another provider with your practice's clinical information.</p>	<b>Yes</b>	<b>No</b>	<b>Don't know</b>	<b>Not Applicable</b>
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Att A – Changes to 2017 NEHRS

Medication lists	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Medication allergy lists	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Problem lists	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

Question 43 is added to the proposed 2018 NEHRS to assess time outside of office hours in their medical record system. Medical record systems include paper-based and EHR systems. These questions will help provide insights on how clinical across medical record systems; these measures are a priority for ONC.

44. On average, how many hours per day do you spend outside of normal office hours documenting clinical care in your medical record system?

- 1 None    2 Less than 1 hour    3 1 to 2 hours    4 Greater than 2 hours to 4 hours  
5 More than 4 hours

Support staff may reduce the amount of time physicians spend documenting clinical care. Thus, we have included an item that asks whether staff support are available to assist with documenting clinical care in item 45.

45. Do you have staff support (e.g., scribe) to assist you with documenting clinical care in your medical record system?

- 1 Yes    2 No

Question 48 asks about the impacts physicians perceive related to the alignment of documentation requirements for private insurers and Medicare. We believe that this is an important dimension to assessing the impacts of burden.

48. Clinical care documentation requirements for private insurers generally align with Medicare requirements.

- 1 Strongly agree    2 Somewhat agree    3 Somewhat disagree    4 Strongly disagree    5 Not applicable