

APPENDIX B. TECHNICAL EXPERT PANEL MATERIALS

Technical expert panel (TEP) members provided three rounds of feedback on survey development during the project. The initial round included review and ratings of draft survey items by e-mail in late summer 2008. Feedback from the pre-meeting review was compiled and used to help direct the two-day TEP meeting held in Washington, DC in September 2008. The discussion and recommendations from the TEP meeting significantly shaped the survey content and approach. After project team members revised the survey questions based on the TEP meeting recommendations, TEP members reviewed and provided feedback on the revised survey in spring 2009 via e-mail.

This appendix contains the following materials related to the fall 2008 TEP activities that helped guide development of the core and drill-down survey questions and administration recommendations (materials for the spring 2009 review are not included as the review did not involve ratings or structured questions).

B.1: List of TEP members

B.2: Materials used to obtain TEP feedback prior to the September 2008 meeting, including the following:

- Review instructions letter
- Core survey to complete
- Core survey ratings sheet

B.3: Compilation of the ratings and feedback received from the pre-meeting review

- Compiled ratings
- Comments from TEP members

B.4: Notes summarizing September 2008 TEP meeting discussion and recommendations

Survey Questions for EHR Adoption and Use in Nursing Homes

Technical Expert Panel Members

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September 5, 2008

Dear _____:

We appreciate your willingness to participate in the TEP meeting on September 24 and 25 in Washington, DC, for the project to develop survey questions related to health information technology in nursing homes. This letter provides project background, a description of the attachments, and instructions to complete two documents: a rating form for the draft core survey and the draft core survey itself. We ask that you return them to our office by September 17th. We will use your consolidated responses to these ratings as a basis for the meeting. Please let us know if you have any questions regarding these ratings.

Background

The Office of the Assistant Secretary for Planning and Evaluation (ASPE), through a contract with the University of Colorado Denver Division of Health Care Policy and Research (HCPR), is developing survey questions to measure the adoption, barriers, and use of electronic health records (EHRs) and health information technology (HIT) in nursing homes. Survey questions are composed of 1) a set of core questions that could potentially be added to the National Nursing Home Survey (NNHS) periodically fielded by the National Center for Health Statistics; and 2) an expanded set of survey questions that could be used by public and private sector entities interested in measuring issues related to EHR/HIT in nursing homes.

Core survey questions will focus on the level of automation used to support several key work functions (e.g., clinical notes, medication administration, provider orders), as well as identifying barriers and incentives that may influence HIT adoption. It is anticipated that this set of 10-12 questions may be fielded with the NNHS. Questions could be provided (electronically or surface mail) along with the staffing questionnaire portion of the NNHS to the nursing home administrator or delegated individual prior to the telephone interview. During the telephone interview, the interviewer would request that the NH respondent refer to the list of questions and provide verbal responses, which would be data entered along with other NNHS responses.

The expanded survey is intended for administration via an electronic (Web) format and could be fielded by long-term care stakeholder groups. We anticipate that survey respondents will be Nursing Home Information Systems officers or delegated

individuals. Respondents will first respond to care survey questions. The response for each core question will trigger follow-up questions designed to provide additional information about specific functionalities. For example, if the respondent indicated that a specific HIT application has health information exchange (HIE) capabilities, a follow-up questions will inquire whether the application incorporates HIE for semantic or messaging standards.

Attachments

There are six attachments to this document.

1. Meeting Agenda
2. Core Survey--includes an instruction sheet and then five sections of questions
3. Rating form for the core survey
4. Branch on Drill-Down Questions for Expanded Survey
5. List of Other Related Questions on HIT Adoption from Selected Surveys
6. Literature review

The second and third documents, the core survey and rating form for the core survey, are electronic documents in Microsoft Word, which you can save and then fill out. Instructions are provided in this letter and with the core survey. Once you have completed them, please send them back in a reply e-mail to angela.richard@uchsc.edu. The other documents are for you to review prior to the meeting. As you can see from the agenda, the first day will be spent on the core survey using consolidated information that you provided to us related to the core survey. The second day will be devoted to the expanded survey.

Instructions

Core Survey: Please complete the core survey questions as if you were a nursing home administrator (or person delegated by the administrator) completing the survey. If possible, use your knowledge of the HIT applications in use at a particular nursing home, with which you are very familiar.

Rating Form: Please rate each question on a three-point Likert scale for the following three criteria:

1. Clarity of wording--"1" represents "not clear enough to complete," and "3" represents "as clear as it needs to be." Please provide specific rewording suggestions if you think they are required.
2. Importance for the survey--"1" represents "do not include in survey," and "3" represents "definitely include in survey."
3. Likely response variability--"1" represents "likely to vary only minimally across nursing homes," and "3" represents "substantial variability is likely."

In addition to completing the evaluation of the core questions, please review the branch or drill-down questions for scope, clarity, and relevance. We will be obtaining your feedback on these items during the meeting. We also plan to discuss the feasibility of the current plans for fielding the survey. We look forward to your input and the subsequent discussion. Call if you have questions (303-724-2500). We look forward to seeing you in Washington and thanks again.

Sincerely,

/S/
Andrew Kramer, MD
Principal Investigator

/S/
Angela Richard, MS, RN
Project Director

Survey on Use of Health Information Technology and
Barriers and Incentives to Use in Nursing Homes

Core Survey
INSTRUCTIONS

Survey Sections

- Section 1: MDS Automation
- Section 2: Electronic Capability of Clinical Work Functions
- Section 3: Surveillance Data Transmission
- Section 4: Barriers to HIT Adoption and Use
- Section 5: Incentives for HIT Adoption and Use

Survey Instructions by Section

Section 1: Indicate how you enter, store, and transmit MDS data based on the five questions.

Section 2: Questions 2.1-2.14 ask you to rate your facility's level of electronic capability for 14 functions. Please select the response option that best reflects the system used at your facility for each function based on the highest level of automation currently used—not just installed or available, but actually used—even if not used system-wide (e.g., used only on one unit or by particular provider types, or only by some individuals).

For each function, please choose one of five response options that represent increasing levels of electronic capability, from none (i.e., paper system) to an integrated electronic system that supports information exchange within and outside of your facility (and health network, if relevant). Each level is named to indicate the additional capacity gained by that level, as shown below.

- Level a: Paper System
- Level b: Electronic Storage and Access within Facility/Health Network
- Level c: Point of Care Data Input
- Level d: Integrated Systems within Facility/Health Network
- Level e: Electronic Information Exchange with Outside Providers or Contractors

To clarify each level, a description is provided on the following five dimensions in the table above the questions:

- Information input
- Information storage
- Information access within facility/health network
- Internal system integration within facility/health network
- Information exchange with outside providers or contractors

Please use the table as a reference when responding. The table highlights the progressive/cumulative nature of information management. The addition of electronic capacity from one level to the next is highlighted by the use of italics and by the level name. For example, the change from Level a to Level b is characterized by additional electronic capacity with regard to three dimensions: information input, storage, and access (in italics). Level b is named "Electronic Storage and Access" to reflect this added capacity.

Section 3: Answer the two questions related to surveillance data transmission.

Section 4: For each factor listed, please indicate how much of a barrier it was or currently is to purchasing and using electronic systems for clinical work functions in your facility.

Section 5: Please rate the impact that each of the possible policy changes would have on your decision to adopt health information technology, or your perception of their impact on adoption among nursing homes generally. Also indicate whether the impact was/is positive or negative.

Section 1: MDS Automation

1.1 How does your facility collect MDS data?

- a - MDS data are collected using paper form and data entered at a central location (e.g., by a data entry clerk)
- b - MDS data are entered into an electronic system at point of care

1.2 How does your facility store MDS data?

- a - MDS data are not stored electronically; hard copies only are maintained
- b - MDS data are stored electronically in a database separate from the medical record
- c - MDS data are stored electronically within an electronic medical record

1.3 Are MDS data transmitted electronically to entities other than those required by CMS?

- a - No
- b - Yes, to physicians
- c - Yes, to other providers when residents are transferred
- d - Yes, to a third party that audits them
- e - Yes, to other entities (specify): _____

1.4 Does the information exchange application incorporate any messaging or semantics standards? *Mark all that apply.*

- a - Only text is exchanged
- b - Health Level 7 (HL7) (specify): _____
- c - Laboratory Logical Observation Identifier Name Codes (LOINC)
- d - SNOMED CT
- e - National Council on Prescription Drug Programs (NCPDP)
- f - Institute of Electrical and Electronics Engineers 1073 (IEEE1073)
- g - Digital Imaging Communications in Medicine (DICOM)
- h - Other (specify): _____

1.5 Are fields on electronic MDS forms populated from other electronic applications?

- a - No
- b - Yes

Section 2: Electronic Capability of Clinical Work Functions: Using Levels a-e as described below, rate your facility's level of electronic capability for each of the functions listed in 2.1-2.14.

Dimension	Level a: Paper System	Level b: Electronic Storage and Access within Facility/Network	Level c: Point of Care Data Input	Level d: Integrated Systems (Facility/Health Network)	Level e: Electronic Information Exchange (External)
Information Input	Clinical and clerical staff handwrite or type notes, use hard copy forms	<i>Clerical and/or clinical staff enter handwritten or typed information electronically at central workstation – no point of care data input</i>	Clinical staff enter information electronically at point of care (when relevant) – using kiosk, laptop, PDA, bar code reader	Clinical staff enter information electronically at point of care (when relevant) – using kiosk, laptop, PDA, bar code reader	Clinical staff enter information electronically at point of care (when relevant) – using kiosk, laptop, PDA, bar code reader
Storage	Information stored in hard copy only	<i>Information stored electronically</i>	Information stored electronically	Information stored electronically	Information stored electronically
Access	All staff receive information by hard copy	<i>"Anywhere/ anytime" electronic access for authorized staff (onsite, remote).</i>	"Anywhere/ anytime" electronic access for authorized staff (onsite, remote).	"Anywhere/ anytime" electronic access for authorized staff (onsite, remote).	"Anywhere/ anytime" electronic access for authorized staff (onsite, remote).
Internal System Integration	No electronic system	Not integrated with other clinical or administrative record components or software systems within the facility	Not integrated with other clinical or administrative record components or software systems within the facility	<i>Integrated electronic functions within facility. Information exchange (e.g., medication orders populate MAR) accomplished by a) single software product that includes multiple functions or b) interfaces built between unique products or systems</i>	Integrated electronic functions within facility. Information exchange (e.g., medication orders populate MAR) accomplished by a) single software product that includes multiple functions or b) interfaces built between unique products or systems
Information Exchange (External)	Hard copy information exchange with outside providers and contractors (e.g., unaffiliated physician group, hospital, pharmacy), including fax, e-mail, mail	Hard copy information exchange with outside providers and contractors, including fax, e-mail, mail	Hard copy information exchange with outside providers and contractors, including fax, e-mail, mail	Hard copy information exchange with outside providers and contractors, including fax, e-mail, mail	<i>Electronic information exchange with outside providers, contractors with or without use of standards. One-way or two-way information transmission between facility and external systems. Ex: Hospital data populates or can be pulled in to facility health record; facility order entry system transmits and/or receives data to/from pharmacy ordering/distribution system.</i>

	Level:	<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>	<u>e</u>
2.1 Resident Demographic Data		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Problem Lists (list of conditions [potentially] affecting resident physical or psychosocial status and requiring facility evaluation)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Assessment/Care Planning (other than MDS)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Dietary Management (e.g., special diets, meal tickets, etc.)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Resident Activities Management		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Clinical Notes (except CNA notes)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.7 Medication Administration Record (MAR)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.8 CNA Charting and Workflow (e.g., electronic task lists by resident)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.9 Decision Support Tools, Alerts, Reminders (e.g., flags for drug interactions, preventive screening reminders)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.10 Provider Orders - Medications		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.11 Provider Orders – Other than Meds		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.12 Lab Results		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.13 Radiology Results		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.14 Resident Summary Reports (e.g., discharge summaries)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 3: Surveillance Data Transmission

3.1 Do you use an electronic system for transmitting information on notifiable diseases to meet public health reporting requirements?

- a – No
- b – Yes

3.2 If no to 3.1, are you unable to transmit information electronically due to your system capabilities or due to the capabilities of the receiving end/county Health Department?

- a – Facility capabilities
- b – Recipient capabilities

Section 4: Barriers to HIT Adoption and Use: For each factor listed, please indicate how much of a barrier it was or currently is to purchasing and using electronic systems for clinical work functions in your facility.

	Not a barrier 0	Minimum barrier 1	Moderate barrier 2	Major barrier 3
Financial Barriers				
4.1 The amount of capital needed to acquire and implement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Uncertainty about the return on investment (ROI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organizational Barriers				
4.3 Resistance from facility staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.4 Lack of IT personnel/expertise within organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.5 Capacity to select, contract, install, and implement a software/technology system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6 Capacity to train staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7 Concern about loss of productivity during transition to the new system(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.8 Difficulty transitioning historic information into new systems or maintaining historic information in paper record and new information in electronic record during transition period (or indefinitely if no plans to transition historic information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Legal or Regulatory Barriers				
4.9 Concerns about inappropriate disclosure of protected health information (i.e., breaches of resident confidentiality)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.10 Concerns about the ability to keep resident data private and secure (including illegal record tampering or "hacking")	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.11 Concerns about the legality of accepting an EHR that is donated from a hospital	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.12 Concerns about legal liability if residents have more access to information in their medical records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.13 State regulations preventing acceptance of electronic signatures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State of the Technology				
4.14 Finding a system that meets the needs of users in your facility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.15 Concerns that the system will become obsolete (e.g., due to concerns about vendor ability to upgrade and/or support products on an ongoing basis)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.16 Software incompatibilities with established systems (e.g., administrative software products)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.17 Hardware incompatibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.18 Difficulty obtaining or maintaining wireless access (e.g., if located in rural area)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 5: Incentives for HIT Adoption and Use: Please rate the impact that each of the possible policy changes listed below would have on your decision to adopt health information technology, or your perception of their impact on adoption among nursing homes generally. Also indicate whether the impact was/is positive or negative.

	No impact <u>0</u>	Minor impact <u>1</u>	Moderate impact <u>2</u>	Major impact <u>3</u>	Pos. <u>+</u>	Neg. <u>-</u>
5.1 Removal of legal or regulatory barriers (e.g., regulatory changes recognizing and accepting electronic signatures)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Certification identifying EHRs meeting published standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Subsidies for the purchase of an EHR or other electronic functions such as e-prescribing (e.g., tax credits, low interest loans, grants)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Additional payments (i.e., reimbursement) for the use of an EHR or other electronic functions such as e-prescribing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.5 Lower liability insurance premiums for facilities using EHRs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.6 Use of technology to support quality improvement as a Pay for Performance incentive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.7 Use of technology to support inclusion of NHs as part of an HIT demonstration program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.8 Other (specify): _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for participating.

Survey on Use of Health Information Technology and
Barriers and Incentives to Use in Nursing Homes

Core Survey Rating Sheet

	Clarity <u>1, 2, or 3</u>	Importance for Survey <u>1, 2, or 3</u>	Likely Respond Variability <u>1, 2, or 3</u>	<u>Comments:</u>
1. MDS Automation				
1.1				How does your facility collect MDS data? <i>Mark all that apply.</i>
1.2				How does your facility store MDS data?
1.3				Are MDS data transmitted electronically to entities other than those required by CMS?
1.4				Does the information exchange application incorporate any messaging or semantics standards? <i>Mark all that apply.</i>
1.5				Are fields on electronic MDS forms populated from other electronic applications?
2. Electronic Capability of Clinical Work Functions				
2.1				Resident Demographic Data
2.2				Problem Lists (list of conditions [potentially] affecting resident physical or psychosocial status and requiring facility evaluation)
2.3				Assessment/Care Planning (other than MDS)
2.4				Dietary Management (e.g., special diets, meal tickets, etc.)
2.5				Resident Activities Management
2.6				Clinical Notes (exc. CNA)
2.7				Medication Administration Record (MAR)
2.8				CNA Charting and Workflow (e.g., electronic task lists by resident)
2.9				Decision Support Tools, Alerts, Reminders (e.g., flags for drug interactions, preventive screening reminders)
2.10				Provider Orders - Medications
2.11				Provider Orders – Other than Meds
2.12				Lab Results
2.13				Radiology Results
2.14				Resident Summary Reports (e.g., discharge summaries)
3. Surveillance Data Transmission				
3.1				Do you use an electronic system for transmitting information on notifiable diseases to meet public health reporting requirements?
3.2				If no to 3.1, are you unable to transmit information electronically due to your system capabilities or due to the capabilities of the receiving end/county Health Department?
4. Barriers to HIT Adoption and Use				
4.1				The amount of capital needed to acquire and implement
4.2				Uncertainty about the return on investment (ROI)
4.3				Resistance from facility staff

	<u>Clarity</u> 1, 2, or 3	<u>Importance</u> <u>for Survey</u> 1, 2, or 3	<u>Likely</u> <u>Respond</u> <u>Variability</u> 1, 2, or 3	<u>Comments:</u>
4.4				
4.5				
4.6				
4.7				
4.8				
4.9				
4.10				
4.11				
4.12				
4.13				
4.14				
4.15				
4.16				
4.17				
4.18				
5. Incentives for HIT Adoption and Use				
5.1				
5.2				
5.3				
5.4				
5.5				
5.6				
5.7				
5.8				

FINAL VERSION 093008

CORE SURVEY RATINGS

1 MDS	DC	PK	BK	FM	RW	MD	TS	N	a	b	c	d	e	f	g	h	NR
1.1	b	b	a	b	b	b	a	7	28.6%	71.4%	---	---	---	---	---	---	0
1.2	c	c	b	c	bc	c	b	7	0.0%	42.9%	71.4%	---	---	---	---	---	0
1.3	d	a	d	d	de	a	a	7	42.9%	0.0%	0.0%	57.1%	14.3%	---	---	---	0
1.4	a	a	ab	a	a	h	a	7	85.7%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%	0
1.5	b	b	b	b	b	b	a	7	14.3%	85.7%	0.0%	---	---	---	---	---	0

2 Capability	DC	PK	BK	FM	RW	MD	TS	N	a	b	c	d	e	NR
2.1	e	d	b	e	bcd	c	b	7	0.0%	42.9%	28.6%	28.6%	28.6%	0
2.2	b	c	a	d	bcd	c	b	7	14.3%	42.9%	42.9%	28.6%	0.0%	0
2.3	c	c	ab	de	bcd	c	a	7	28.6%	28.6%	57.1%	28.6%	14.3%	0
2.4	a	c	a	de	bcd	c	a	7	42.9%	14.3%	42.9%	28.6%	14.3%	0
2.5	c	c	c	b	bcd	c	a	7	14.3%	14.3%	71.4%	14.3%	0.0%	0
2.6	c	c	a	d	bcd	c	b	7	14.3%	28.6%	57.1%	28.6%	0.0%	0
2.7	c	a	a	b	bcd	c	a	7	42.9%	28.6%	42.9%	14.3%	0.0%	0
2.8	c	d	c	d	bcd	c	a	7	14.3%	14.3%	57.1%	42.9%	0.0%	0
2.9	c	c	a	d	bcd	c	a	7	28.6%	14.3%	57.1%	28.6%	0.0%	0
2.10	c	b	b	e	bcd	c	a	7	14.3%	42.9%	42.9%	14.3%	14.3%	0
2.11	c	a	b	d	bcd	c	a	7	42.9%	28.6%	42.9%	14.3%	0.0%	0
2.12	a	a	a	b	bcd	c	a	7	57.1%	28.6%	28.6%	14.3%	0.0%	0
2.13	a	a	a	b	bcd	c	a	7	57.1%	28.6%	28.6%	14.3%	0.0%	0
2.14	c	c	a	b	bcd	c	a	7	28.6%	28.6%	57.1%	14.3%	0.0%	0

3 Surveil.	DC	PK	BK	FM	RW	MD	TS	N	a	b	NR
3.1	a	b	a	a	a	a	a	7	85.7%	14.3%	0
3.2	a	ab	ab	a	ab	a	a	7	100.0%	42.9%	0

4 Barriers	DC	PK	BK	FM	RW	MD	TS	N	Pct 0	Pct 1	Pct 2	Pct 3	NR
4.1	3	3	3	2	3	2	NR	6	0.0%	0.0%	33.3%	66.7%	1
4.2	3	3	3	1	3	2	NR	6	0.0%	16.7%	16.7%	66.7%	1
4.3	2	1	2	1	3	1	NR	6	0.0%	50.0%	33.3%	16.7%	1
4.4	2	0	2	1	3	2	NR	6	16.7%	16.7%	50.0%	16.7%	1
4.5	2	1	2	1	3	2	NR	6	0.0%	33.3%	50.0%	16.7%	1
4.6	2	1	3	1	3	2	NR	6	0.0%	33.3%	33.3%	33.3%	1
4.7	2	1	2	1	3	2	NR	6	0.0%	33.3%	50.0%	16.7%	1
4.8	1	1	1	1	23	2	NR	6	0.0%	66.7%	33.3%	16.7%	1
4.9	1	0	1	0	3	1	NR	6	33.3%	50.0%	0.0%	16.7%	1
4.10	1	0	3	0	3	1	NR	6	33.3%	33.3%	0.0%	33.3%	1
4.11	0	0	1	1	3	0	NR	6	50.0%	33.3%	0.0%	16.7%	1
4.12	1	1	0	0	3	0	NR	6	50.0%	33.3%	0.0%	16.7%	1
4.13	1	1	2	0	0	2	NR	6	33.3%	33.3%	33.3%	0.0%	1
4.14	2	2	3	2	3	2	NR	6	0.0%	0.0%	66.7%	33.3%	1
4.15	1	2	1	0	3	1	NR	6	16.7%	50.0%	16.7%	16.7%	1
4.16	1	1	3	0	3	1	NR	6	16.7%	50.0%	0.0%	33.3%	1
4.17	1	0	1	0	3	1	NR	6	33.3%	50.0%	0.0%	16.7%	1
4.18	1	0	3	1	3	0	NR	6	33.3%	33.3%	0.0%	33.3%	1

5 Incent.	DC	PK	BK	FM	RW	MD	TS	N	Pct 0	Pct 1	Pct 2	Pct 3	NR	Pos	Neg	NR
5.1	1+	1+	3+	2+	3+	2+	NR	6	0.0%	33.3%	33.3%	33.3%	6	100.0%	0.0%	2
5.2	2+	2+	3+	2+	3+	2+	NR	6	0.0%	16.7%	33.3%	50.0%	6	100.0%	0.0%	2
5.3	3+	1+	3+	1+	3+	3+	NR	6	0.0%	50.0%	0.0%	50.0%	6	100.0%	0.0%	2
5.4	2+	3+	3+	1+	3+	3+	NR	6	0.0%	16.7%	16.7%	66.7%	6	100.0%	0.0%	2
5.5	1+	3+	3+	1+	3+	2+	NR	6	0.0%	33.3%	16.7%	50.0%	6	100.0%	0.0%	2
5.6	2+	3+	3+	2+	3+	3+	NR	6	0.0%	0.0%	33.3%	66.7%	6	100.0%	0.0%	2
5.7	1+	1+	3+	0+	3+	2+	NR	6	16.7%	33.3%	16.7%	33.3%	6	100.0%	0.0%	2
5.8	NR	NR	3+	NR	NR	NR	NR	1	0.0%	0.0%	0.0%	100.0%	6	100.0%	0.0%	6

NR = No Response

09/30/08

Survey on Use of Health Information Technology and Barriers and Incentives to Use in Nursing Homes

TEP Meeting
September 24-25, 2008

PARTICIPANT'S COMMENTS REGARDING SURVEY QUESTIONS

1. MDS AUTOMATION

1.1. How does your facility collect MDS data?

Dan Cobb (DC): Some data may be collected electronically, some on paper. Perhaps change to "mark all that apply" or add a third hybrid option. Or, the "b" option could say that "some data" entered at point of care (POC).

Yael Harris (YH): Suggest b is broken into two--data collected electronically sometimes (e.g., by CNAs) but not by others (e.g., therapist) and another option that ALL MDS data is collected electronically. Might want to acknowledge that small subset of homes do not transmit any of their data electronically

Nathan Lake (NL): There are more than 2 ways to do this. In fact, most facilities probably do both a and b in some combination.

Peter Kress (PK): MDS is a summary so each section sources information separately.

Frank McKinney (FM): The phrase "point of care" could be clarified here and where used elsewhere in the survey, e.g., would entry at a kiosk in the hallway suffice. Also, how should this be answered if the majority, but not all info is entered at point of care?

Michelle Dougherty (MD): The word point of care is confusing. Many who assess and complete the MDS are not doing it at the "point of care". Reword-- "assessors complete directly in the EHR" or something similar.

1.2. How does your facility store MDS data?

DC: Similar issues to above. Some may store MDS electronically, while still printing hard copy and placing in the chart. It would be useful to know how many facilities store electronically, but also still print hard copy for the chart.

NL: I don't know if most people would know if b or c is true. This also assumes they have an electronic medical record (EMR) and that is doubtful depending on how they define that term.

Bill Kubat (BK): Need a choice of electronic and hard copy.

MD: Is a even a probable answer with electronic submission requirements? When would an MDS be stored in a separate data base--would this be a stand-alone MDS module like RAVEN?

Barbara Manard (BM): On all of these questions, are you sure enough that you have covered all the possible options so you don't need a "other" response?

1.3. Are MDS data transmitted electronically to entities other than those required by CMS?

DC: Are multiples allowed?

PK: Consumer should be added. Not sure how significant it is that MDS specifically is transmitted. More interested in summary documents which could incorporate MDS.

MD: What about electronic submission to corporate offices?

BM: What do you mean by "transmitted electronically"? Does an e-mail count?

1.4. Does the information exchange application incorporate any messaging or semantics standards?

DC: I believe most providers will not understand "information exchange application". Also SNOMED should be spelled out or briefly explained. Finally the CDA, CCR, CCD should be added as a single option.

YH: Add "don't know" as category.

NL: I am not sure how aware facility people are aware of this.

BK: Administrators won't know.

PK: Detailed terminology knowledge won't be available to those filing out form. MDS Context makes this particularly unclear. Perhaps better would be "textual" vs. "structure" vs. "standards-based".

MD: A response of "I don't know" is needed make sure that people do not just guess and decrease the accuracy. Although the question is clear, I think this will be a very difficult questions to answer--messaging and semantic interoperability is understood by a fairly small group. Consider rewording or delete.

1.5. Are fields on electronic MDS forms populated from other electronic applications?

DC: "Other electronic applications" may be confusing--from external sources or internal?

BK: Clarify whether talking about demographic or clinical assessments.

NL: All major vendors that I am aware of make this possible. The better question might be whether the facility makes use of this. Also, all software allow a "pull forward" functionality from the previous MDS. This is something that many facilities do not allow.

PK: Different for different segments, options include paper sourced, electronically sources but keyed, electronically sourced automatically integrated.

MD: Will users understand other electronic applications? Consider "populated from information within the EHR/clinical system".

2. ELECTRONIC CAPABILITY OF CLINICAL WORK FUNCTIONS

2.1. Resident Demographic Data

DC: As a general comment there will be gray areas. A provider may not have point of care, but may exchange information integrated systems (d) and External exchange (e) doesn't necessarily guarantee point of care input.

YH: Find table very cumbersome. Can this be an appendix to the survey or a look up table if administered electronically?

NL: All software does this. I would rather see this entire section worded so that we can determine who has this functionality AND who actually uses it.

PK: In general, column d is problematic, wide variability of approach and result.

FM: Throughout this section, it wasn't entirely clear where data entry at the point of care applies. This one seems less likely to involve point of care entry than others. It would be useful to provide more direction on this point to the reader. Another comment about the section in general: rising above level c requires point of care entry...that means that a facility with an integrated system (the level d differentiator) but not POC will be lumped in with level b facilities--and the survey will not reflect its additional capability. Likewise re the level b requirement for remote access...if a facility's system isn't Web-based can it get above level a? Lastly, does use of a tablet computer running a standard desktop app count for POC, or is it expected that there would be a more specialized application/module (e.g., touch screen w/no stylus needed).

BM: I found all of the questions in this section very confusing and pretty much impossible to answer, unless I am really willing to study the instructions. I would not count on people being willing to do that. My suggestion would be to go for greater simplicity, recognizing that you will have less precision. You need a simpler definition of the various "levels".

2.2. Problem Lists (list of conditions [potentially] affecting resident physical or psychosocial status and requiring facility evaluation)

NL: The term "problem list" is open to interpretation. Does this mean automatically generated lists based upon some facility input (e.g., diagnosis or risk assessments)?

FM: See above. I included the identification of new problems as a point of care event.

2.3. Assessment/Care Planning (other than MDS)

BK: Two different questions.

PK: Confusing as assessment and care planning are typically separate steps in process, also and relationship to MDS is not always clear.

FM: See above. I didn't see the care conference as a point of care opportunity, but did see that for tracking the follow-through on approaches.

MD: Consider separating assessments from care plans.

2.4. Dietary/Management (e.g., special diets, meal tickets, etc.)

PK: Clarify between data collection, nutritional assessment, and service delivery.

FM: See above. Assumed that planning was not POC, but tracking intake and response is.

2.5. Resident Activities Management

FM: As for Dietary Mgmt above. Point of care w/b relevant to tracking activity.

2.6. Clinical Notes (exc. CNA)

NL: Why exclude CNA? This application is one that varies the most in functionality. Some are no more than just a text field. Others offer substantially more features.

MD: Consider clarifying--progress notes, weekly/monthly summary notes, etc. if all are included in this clinical notes category.

2.7. Medication Administration Record (MAR)
DC: Add Treatment Administration (TAR)

NL: What about CPOE and electronic prescribing?

BK: And TAR (treatment administration).

PK: Distinguish between MAR and medication bar coding?

FM: Would interpret that level e requires use of an eMar.

MD: Does this also include TARs?

2.8. CNA Charting and Workflow (e.g., electronic task lists by resident)

BK: Two different questions--also communication tools would be important here.

PK: Observation vs. task.

MD: Are workflow and charting always a combined application? May want to ask the question separately.

2.9. Decision Support Tools, Alerts, Reminders (e.g., flags for drug interactions, preventive screening reminders)

YH: Ask to describe or select from drop down list.

PK: What does it mean to "data enter" alerts/reminders? Not sure the matrix works for this question.

MD: Does this mean the ability to enter med orders into the EMR, to the pharmacy or to the physician--only one of these or all three?

2.10. Provider Orders--Medications

NL: Does this mean orders entered directly by the prescriber, or a system of documenting orders as entered by the nurse?

BK: Important to ask if physician can enter orders from home or office with acceptable electronic signature.

PK: Do we need to distinguish e-prescribing?

2.11. Provider Orders--Other than Meds

YH: Might want to break out lab ordering.

NL: Same comment as above.

MD: Does this mean the ability to enter med orders into the EMR, to the pharmacy or to the physician--only one of these or all three?

2.12. Lab Results

NL: Anything about receiving lab results electronically?

PK: How to answer self service Web access, vs. message based integration?

FM: Electronic lab communication isn't very common, but I believe that the ability to upload faxed/PDF'd results is more frequently available (and better than nothing). Since the infrastructure for electronic labs, radiology isn't widely available, would it be useful to track the lesser upload capability?

MD: Please clarify--would one answer the question the same if they received results from the lab on a separate system which wasn't integrated into the EMR?

2.13. Radiology Results

NL: Same comment as above.

FM: See above re. electronic labs.

MD: Please clarify--would one answer the questions the same if they received results from the lab on a separate system (or electronically--i.e., e-mail) which wasn't integrated into the EMR?

2.14. Resident Summary Reports (e.g., discharge summaries)

NL: Same comment as above.

MD: Very vague--are you talking about a discharge transfer form, consult form, the discharge summary (i.e., recap of stay).

PK: Matrix is difficult. Interesting aspects are how much of summary report is assembled by system. Is annotation manual, or keyed, and how is summary transmitted.

3. SURVEILLANCE DATA TRANSMISSION

3.1. Do you use an electronic system for transmitting information on notifiable diseases to meet public health reporting requirements?

YH: Clarify that this is NOT e-mail.

NL: I would really like to know if this capability is part of their core suite of applications, or a stand-alone non-integrated product.

PK: Should distinguish between Web self service reporting and message based integration.

BM: Need to give some "for examples."

- 3.2. If no to 3.1, are you unable to transmit information electronically due to your system capabilities or due to the capabilities of the receiving end/county Health Department?

DC: They may not know. Or, unable due to both?

YH: May need any other category.

MD: What about both answers being a possibility--include a box for both.

BM: What is the answer is "neither"--I have the capability and so does the HD, but we just don't do it.

4. BARRIERS TO HIT ADOPTIONG AND USE

- 4.1. The amount of capital needed to acquire and implement

BM: I am rating all of these clear and important because they are clear and easy to fill out, hence useful to know, relative to the ease of complaint.

- 4.2. Uncertainty about the return on investment (ROI)

- 4.3. Resistance from facility staff

DC: Another factor to add: "Lack of support from board or executive management".

BK: Should be asking about a change management methodology and whether staff have basic keyboarding skills--use e-mails, etc.

- 4.4. Lack of IT personnel/expertise within organization

BK: Two separate questions.

MD: Would this be for both installation and ongoing management?

- 4.5. Capability to select, contract, install, and implement a software/technology system

BK: Multiple questions. Should be more than one question.

MD: Should a separate question be asked about the use of agency/pool/temp staff and the ability to train for the intricacies of the EMR?

4.6. Capacity to train staff

BK: Capacity to backfill for staff being trained and to assist with workflow changes after initial implementation. Should be more than one question.

MD: Used EHR in this statement--EMR had been used in other parts of the survey.

4.7. Concern about loss of productivity during transition to the new systems

4.8. Difficulty transitioning historic information into new systems or maintaining historic information in paper record and new information in electronic record during transition period (or indefinitely if no plans to transition historic information)

BK: No value to this question.

NL: Too complex. Might be better as multiple items.

PK: Mixes multiple issues, data conversion vs. hybrid record are fundamentally different and, at times coincident problems.

4.9. Concerns about inappropriate disclosure of protected health information (i.e., breaches of resident confidentiality)

DC: Mention HIPAA?

BK: Capacity to identify adequate security strategies.

PK: I don't perceive a clear distinction between 4.9 and 4.10.

4.10. Concerns about the ability to keep resident data private and secure (including illegal record tampering or "hacking")

DC: Mention HIPAA?

YH: This g and 4.9 could be consolidated into single privacy question.

4.11. Concerns about the legality of accepting an EHR that is donated from a hospital

NL: I would bet most have not even considered this possibility.

BK: Concern about meeting e-discovery requirements and electronic health exchange information as secondary information--keep or get rid of/lack of retention guidelines for secondary info transferred from another organization.

PK: Not sure how applicable this really is.

MD: Whether records are paper or electronic shouldn't change what a resident has access to in their medical record. Perhaps this should be concern with the ability to provide electronic access.

4.12. Concerns about legal liability if residents have more access to information in their medical records

BK: Residents wouldn't have more access than they do now--can access entire chart in hard copy if needed.

PK: hmmm.

4.13. State regulations preventing acceptance of electronic signatures

YH: This will not be a barrier in just a few years.

BK: Lack of federal standards for electronic signatures--so states do not have different requirements.

PK: Excuse only.

4.14. Finding a system that meets the needs of users in your facility

BK: Multi-state centers have to meet data collection requirements because of another state regulation the organization practices in.

4.15. Concerns that the system will become obsolete (e.g., due to concerns about vendor ability to upgrade and/or support products on an ongoing basis)

4.16. Software incompatibilities with established systems (e.g., administrative software products)

BK: Additional question might be--Lack of interface engine to easily build interfaces as well as lack of mobile Web-based learning software availability (other than for iPhones).

PK: Perhaps reword to something like "challenges of integrating disparate systems".

4.17. Hardware incompatibilities

BK: Ability to afford replacement of hardware periodically.

PK: Reword to "cost of acquiring/replacing hardware"?

MD: Where would you place concerns with having enough hardware in the facility adequately maintain an EMR?

4.18. Difficulty obtaining or maintaining wireless access (e.g., if located in rural areas)

DC: Another factor "Concerns about system availability and reliability".

BK: Additional item might be bandwidth limitation and network costs. Need additional clarification.

FM: Is this referring to simply Internet access or to wireless networking inside the facility? Being a rural facility would impact Internet access but not wireless networking (e.g., for POC devices), I'd suggest having one question about Internet availability and a separate question about cost/complexity of establishing a wireless network.

5. INCENTIVES FOR HIT ADOPTION AND USE

5.1. Removal of legal or regulatory barriers (e.g., regulatory changes recognizing and accepting electronic signatures)

BK: Standard format for health information exchange and recognition or legal ownership and responsibilities for secondary information receive from another organization as miscellaneous information.

PK: Too generic. Generally I think the pos/neg indicators are redundant as the questions are phrased to equate size of impact to the positive.

FM: Could break out different areas of regulation, electronic signatures in general, pharmacy board regulations, state NH regs, etc.

BM: I do not think people can give meaningful answers to these questions as written because it all depends on the details of the policy changes--for example, "payments" depends on "how much"; my guess is that people will answer anyway, assuming the details are to their liking, but I'd suggest rethinking how to address this section.

5.2. Certification identifying EHRs meeting published standards

YH: Need better language. Many will not know what certification is/means.

BK: Standards for certification need to advance in depth--having a function and doing it according to an efficient workflow are two different things!

MD: May want to clarify--external agency validates and certifies EHR product and adherence to published standards.

5.3. Subsidies for the purchase of an EHR or other electronic functions such as e-prescribing (e.g., tax credits, low interest loans, grants)

PK: First use of e-prescribing, so suggest lack of clarify regarding components being evaluated.

5.4. Additional payments (i.e., reimbursement) for the use of an EHR or other electronic functions such as e-prescribing

- 5.5. Lower liability insurance premiums for facilities using EHRs
- 5.6. Use of technology to support quality improvement as a pay for performance incentive

NL: This is worded differently than the rest of the items in this section. Not sure what it means.

- 5.7. Use of technology to support inclusion of NHs as part of an HIT demonstration program

NL: Same comment as above.

FM: This question isn't clear to me. Would the incentive be free or reduced-cost access to technology due to a grant or subsidy?

- 5.8. Other (specify)

DC: Another factor: "Readily available objective business cases and returns on investments".

NL: There is nothing about electronic communication (Health Level 7 for demographics, e-prescribing, etc.).

BK: Incentives to implement a Content Management System with document imaging to be paperless and to assist with workflow design and improvements. Defined federal standard for cut, copy and past functions in EHR. Define requirements for printing an entire EHR for the legal system.

Additional comments:

YH: Found the format of the survey to be difficult to navigate. Will this survey be electronic or paper based? If it is paper based, I suggest that the table for section 2 be a separate document that they can reference as they work through the questions. I also recommend that we ask if they have an EHR (we can then map that response to the functionalities that they claim they have) and whether it is Certification Commission for Healthcare Information Technology (CCHIT) certified. Another thing knowing is the size of the facility, if they are affiliated with a hospital, if they are for profit or not for profit, and their location, how long have they been doing each of these functionalities. And for those who don't have an EHR, do they plan on buying one in the next 6-12 months? In the next 2-5 years? We are adding two questions to the NAMC survey going forward that might be valuable to add to the survey:

24. What year did you last buy or upgrade your EMR system?	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25px; border: 1px solid black; text-align: center;"> </td> <td style="width: 25px; border: 1px solid black; text-align: center;"> </td> <td style="width: 25px; border: 1px solid black; text-align: center;"> </td> <td style="width: 25px; border: 1px solid black; text-align: center;"> </td> <td style="padding-left: 5px;">Year</td> </tr> </table>					Year
				Year		
25. Are you using a 'Certification Commission for Healthcare Information Technology' (CCHIT) Certified EMR system?	<p>1 <input type="checkbox"/> Yes</p> <p>2 <input type="checkbox"/> No</p> <p>3 <input type="checkbox"/> Unknown</p>					

(Note that the language will be changed to EHR in the final survey.)

I think we need to recognize that providers may not know which standards they are using so it is probably more practical to ask them if they are using products that are CCHIT certified rather than whether they are using LOINC, SNOMED, etc. Finally, I think it would be great to ask them about their plans to purchase/upgrade in the future. (I believe I mentioned this in my e-mail below but wanted to re-emphasize the point.)

Survey Questions for EHR Adoption and Use in Nursing Homes

Notes from Technical Expert Panel (TEP) Meeting

Office of the Assistant Secretary for Planning and Evaluation (ASPE)
Humphrey Building Health Policy Conference Room 443F, Washington, DC
September 24-25, 2008

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Survey Questions for EHR Adoption and Use in Nursing Home

Technical Expert Panel (TEP) Meeting
September 24-25, 2008

Agenda

September 24, 2008--Core Survey

- 8:00 a.m. Continental Breakfast
- 8:30 a.m. Welcome and Introductions
- 9:00 a.m. Overview of Project Background and Goals
- 9:30 a.m. TEP Member General Comments on Draft Core and Expanded Survey Questions, Including Alignment with Existing Surveys
- 10:30 a.m. Break
- 10:45 a.m. Summary of TEP Feedback: Proposal Fielding of Core and Expanded Surveys
- 11:15 a.m. Discussion--Core Survey Section 2 (Clinical Work Functions)
- 12:15 p.m. Lunch (catered)
- 1:00 p.m. Discussion--Core Survey Sections 1 (MDS) and 3 (Public Health Reporting)
- 2:00 p.m. Discussion--Core Survey Section 4 (Barriers)
- 2:30 p.m. Break
- 2:45 p.m. Discussion--Core Survey Section 5 (Incentives)
- 3:30 p.m. Discussion--Facility Characteristics
- 4:00 p.m. Additional Discussion of Fielding Issues and Wrap-Up Comments
- 4:30 p.m. Adjourn

September 25, 2008--Expanded Survey

- 8:00 a.m. Continental Breakfast
- 8:30 a.m. Overview of Expanded Survey and Break-out Groups to Discuss Assigned Subsets of Survey Questions
- 10:15 a.m. Break
- 10:30 a.m. Discussion of Break-out Group Input on Expanded Survey Questions
- 11:30 a.m. Discussion of Time Frames and Next Steps and Wrap-up Comments
- 12:00 p.m. Adjourn

Meeting Summary

Overview and TEP Member Initial Comments

Jennie Harvell and Andy Kramer opened the meeting with a brief overview of the policy background for funding the project and overall project goals. A summary of the draft survey design and potential fielding applications were discussed.

The articulated goals for the meeting were to obtain feedback on:

- Draft survey items alignment with existing surveys
- Proposed survey fielding in collaboration with the NNHS and other private sector surveys, needed facility data, and needed next steps to pursue prior to fielding
- Potential core item refinements (work functions and response scale)
- Potential expanded item refinements

Prior the meeting, TEP members had been provided with the draft survey items and asked to: (a) complete the items based on knowledge of a particular nursing home system (if possible); and (b) to rate the items in terms of clarity, importance and potential response variability. After the start of the TEP meeting, each TEP member was given the opportunity to provide general comments on the draft survey. Key points from the initial comments are listed below.

- Responses to the overall survey approach were generally positive.
- A point was made that historical motivation to adopt HIT applications may be predictive of future HIT adoption efforts.
- There were some concerns about the complexity of questions (particularly question #2 on the core survey) and consistent use of terms.
- There were some concerns about the ability of the potential respondents to answer all questions. Some questions may be more appropriate for a clinical expert to answer while others may require administrative input.
- There were concerns about the length of the expanded survey and potential burden to nursing homes.
- Very few people would be able to answer the question on specific standards (an expanded survey question).

- Another study funded by the Commonwealth Foundation is conducting a market scan of HIT applications available to nursing homes and identifying barriers to adoption. Their work may help inform this project.
- The current wording of the barriers section has a negative tone. However, the concept is important for many audiences, including vendors and policymakers.
- The current questions may not work for more than one fielding method, such as in-person data collection effort (i.e., NNHS) and an on-line survey.
- Comments were mixed on the need to align the survey with existing surveys addressing HIT adoption in other provider settings. From a policy setting, it is important to track adoption rates across settings. However, if this approach is judged to be superior to those used in existing surveys, it should be used.
- Text fields for comments should be allowed.
- The current scale for the clinical functions (question #2 on the core survey) may not adequately distinguish levels of adoption. For example, it does not really indicate if systems are fully implemented vs. partially implemented.
- Some of the clinical function areas are too broad (e.g., assessment and care planning).
- The surveys do not include any infrastructure questions, such as securities and records management.
- The survey approach should take a futuristic viewpoint. The industry is rapidly changing, roles and definitions are changing, software solutions are rapidly changing. A maturation model of HIT adoption may be a better approach.
- There should be a heavier emphasis on aligning with the industry developments such as the Long-Term Care-Nursing Home EHR-System Functional Profile.

Discussion of Core Survey

Peter Kress raised the possibility of assessing general functions vs. specific “tracer” functions (e.g., would a wound assessment be a tracer for assessments in general?). The group voted to retain the focus on general functions for the core survey and to address specifics on the expanded questions.

A comment was made that our list contained both clinical functions and data sets (e.g., problem lists). Other surveys similarly list both as “functions”. Dietary management and resident activity management are separate modules and should be dropped from the core list of functions.

A new scale was proposed for **level of automation**:

Level A: Paper

Level B: Combination paper and electronic

Level C: Point of Service electronic

For each application, a question on **decision support** (y/n) will be asked (see further discussion of this topic in the discussion of the expanded survey below).

The following key areas for the core survey were identified:

1. Functions/applications
 - Resident Demographics
 - Advance Directives
 - Clinical Notes: Attending medical doctor (MD)
 - Clinical Notes: registered nurse
 - Clinical Notes: certified nurse assistant (CNA) observations and notes
 - Problem List
 - Allergy List
 - Medication Administration
 - Treatment Administration
 - MDS Assessment
 - Non-MDS Assessment
 - Care Plan
 - Task List (e.g., CNA workflow)
2. Results Viewing
 - Labs
 - Xrays
 - Consults
3. Order Entry
 - Med Order Entry--Nurse
 - Med Order Entry--Prescriber
 - Other Order Entry--Nurse
 - Other Order Entry--Prescriber
4. Telehealth/Telemonitoring
 - Telehealth (One question: Do you incorporate? y/n)
 - Telemonitoring (One question: Do you incorporate? y/n)

An **information exchange scale** was created/added for a key set of functionalities (identified below).

For each function, mark all that apply:

Level A: Information sharing across applications (enter data once, access as appropriate)

Level B: Receives data from external organization

Level C: Sends data to external organization

N/A: None of the above

Each of the following areas should be rated on the information exchange scale:

- Demographics
- Notes and observations
- Assessments
- Lists: problems, allergies, meds
- Med orders/e-prescribing
- Ancillary orders (Xrays, labs, DME, therapies, etc.)
- Lab orders and results
- Other ancillary results (e.g., Xrays, labs)
- Summary reports (discharge, transfer, consults)
- Advance directives
- Public health reporting (e.g., tuberculosis, etc.)

In addition, a few areas for single questions for the core survey were identified:

1. Quality Management Reports (see draft expanded survey, item CDT-3 for response options).
2. Summary Reports (transfer, discharge, etc.).

Discussion of Expanded Survey (drill-down questions)

A. For function/application, if respondent marks levels of automation b and c described on page A-123 of these notes, drill-down:

1. Is authoritative record paper or electronic? (y/n)
2. If electronic, does facility maintain a hard copy? (y/n)
3. If maintain hard copy, why? (a) for surveyors; (b) state regulations; (c) concerns that system will crash; (d) attorney advice; (e) for business continuity.
4. Is electronic system housed at facility or hosted by a third party (e.g., vendor)?
5. Do you have wireless capability (for level of automation c only)?
6. Does the same person who generates clinical note or observation also transcribe it into the computer?

7. How are data captured? (a) desktop; (b) kiosk; (c) laptop on med card; (d) PDA; (e) voice-activated device; (f) sensors.
8. What is the ratio of devices/appropriate staff (e.g., one kiosk for every three CNAs)?
9. If not doing point of service, why not? (list reasons, mark all that apply)--relevant for response option "b".
10. Do clinicians (e.g., MD, etc.) work remotely?
11. Does the same person who generates the order also enter the information into the computer?

B. Decision Support question (answered for each function), if response is "yes", drill-down:

1. Is decision support function: (a) created by facility; (b) standardized library or vendor-created; or (c) a combination?
2. Which decision support tools are used? (a) data quality (e.g., out-of-range data alerts); (b) alerts triggered by an entry; (c) workflow--system guides next steps; (d) reminders for scheduled events (these can be categorized from our list from the draft set of expanded questions).
3. What is the timing of decision support? (a) real-time--when delivering services [preventive]; (b) near time; (c) end of shift; (d) weekly, etc. [Some discussion of the need for b-d vs. a dichotomous response for "real-time" and "later".]

C. Information Exchange questions to be asked for the smaller group of key functions, as discussed previously, if response is d, e, or f, drill-down:

1. What is the form/structure of information shared? (a) non-structured (text, images); (b) proprietary structure negotiated with vendors for system-to-system data sharing; (c) national standards-based data exchange.
2. With whom do you exchange information? (a) within organization only; (b) external systems.
3. If information is exchanged with external systems, which ones? (mark all that apply) (a) hospitals; (b) pharmacies; (c) home health agencies; (d) MD offices; (e) labs; (f) radiology clinics; (g) personal health records; (h) information exchange networks (Health Information Organizations); (i) other nursing homes.

D. Barriers--For each function/application that respondent indicates is an "a" or "b" level of automation (see page A-123 of these meeting notes):

1. Do you intend to implement additional automated capabilities to support this function? (a) no; (b) yes, within 1-3 months; (c) yes, within next 12 months; (d) yes, within 13-36 months.

2. There could be a general question on barriers, using the headers on our question (also adopted from the hospital survey question on barriers); financial, organizational, legal/regulatory, state of the technology.

On the question of incentives/benefits to HIT adoption, Mary Jane Koren remarked that the Degenholtz work has found that benefits fall into three categories: control (e.g., management oversight), efficiency, and empowerment (especially of CNAs). In addition to these, financial benefits should be addressed.

Survey Administration

There are challenges with fielding the survey along with the NNHS. These include cost, infrequency of administration (next anticipated survey is 2010 at earliest; time is needed to analyze the data). There is no money current in the ASPE budget to support this as an add-on.

It will be necessary to use a Web-based approach if the survey is fielded by the private sector. It is unlikely that the American Association of Homes and Services for the Aging would field the survey. American Health Care Association (AHCA) has a foundation that would consider fielding such a survey, particularly if additional support could be obtained (e.g., Commonwealth).

There is an "Advancing Excellence" initiative, which is funded by Commonwealth, although CMS (through the Quality Improvement Organization) hosts a Website. This avenue should be investigated.

Barbara Manard noted that there is a private enterprise tracking adoption of hospital and ambulatory care HIT. The group recently published an article in *Health Affairs*, and they maintain a Website. She will try to get more information.

Barbara also noted that industry stakeholders need to try to push for funding to field the NNHS soon, because it has not been fielded for four years.

Next Steps

- Refine instrument based on meeting input and send to TEP for another round of feedback.
- Provide paper and pencil version to potential funders.
- Convert core and drill-down questions (longer survey) to a Web format?

APPENDIX C. CORE SURVEY QUESTIONS

This appendix contains the core survey questions from the *Survey of Use of Health Information Technology (HIT) in Nursing Homes*. The objective of the core survey questions is to track the use of automated health information systems in nursing homes over time and identify perceived barriers and benefits associated with implementation and use of such systems. The core survey questions are designed for use as a stand-alone survey or as part of the expanded survey (see Appendix D), which obtains additional information through follow-up questions that are triggered by responses to selected core survey questions.

Survey on Use of Health Information Technology (HIT) in Nursing Homes CORE SURVEY (December 2009)

Core Survey Objective: To track the use of electronic/computerized (also referred to as automated) health information systems in nursing homes over time and identify perceived barriers and benefits associated with implementation and use of such systems.

- 1. Level of Automation and Plans for Additional Automation:** For each function listed below, please:
- **Mark a, b, or c** to indicate the level of automation (or computerization) currently in use at your facility - not just installed or available, but actually used - even if not facility-wide;

AND

- **Mark Yes or No** to indicate whether your facility plans to expand current automated capabilities for each function.

Function/Application	Level of Automation			Plans to Expand Automation Capabilities	
	a Paper Only (no automation)	b Combination Paper/Electronic	c Fully Electronic, with Point of Care ¹	Yes	No
1.1 Resident (Patient) Demographics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Advance Directives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Medical History	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Clinical Notes: Attending MD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Clinical Notes: Licensed Nurse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Clinical Notes: CNA Observations and Notes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Clinical Notes: Other Disciplines (social services, therapy, dietary, others)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Problem List (resident diagnoses, conditions, and limitations requiring facility evaluation, treatment, and monitoring)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Allergy List	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Medication Administration Record (MAR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Treatment Administration Record (TAR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.12 MDS Assessment/RAPs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Assessments Other than MDS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.14 Care Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.15 Task List (e.g., CNA workflow)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Order Entry by Physician or Other Authorized Personnel					
1.16 Medication Order Entry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.17 Other Order Entry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Results Viewing					
1.18 Labs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.19 Radiology (e.g., x-rays)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.20 Diagnostic Tests Other than Radiology or Labs (e.g., lung function, stress tests)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.21 Consults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹ Point of care data entry refers to an electronic/computerized system that allows the nurse, physician, aide, or other provider to enter information into an electronic record during or immediately after visits with residents. Point of care data entry involves use of equipment such as a computer laptop, handheld device (e.g., PDA), kiosk, or bar code reader to record information, rather than pen and paper notes.

2. Automated Clinical Decision Support: For each function listed below, **Mark Yes or No** to indicate whether automated clinical decision support is used. Examples include computerized alerts triggered when unexpected or problematic information is entered (e.g., out-of-range date of birth; prescription for a drug with potential contraindications for a particular resident) or reminders for scheduled events (e.g., lab draws, immunizations).

Function/Application	Automated Clinical Decision Support	
	Yes	No
2.1 Clinical Notes and Observations (by any or all clinical staff)	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Medication Administration Record (MAR)	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Treatment Administration Record (TAR)	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Assessment (MDS and others)	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Care Plan	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Med Orders/E-Prescribing	<input type="checkbox"/>	<input type="checkbox"/>
2.7 Lab Orders and Results	<input type="checkbox"/>	<input type="checkbox"/>
2.8 Radiology Orders and Results	<input type="checkbox"/>	<input type="checkbox"/>
2.9 Diagnostic Test Orders and Results Other than Radiology and Labs	<input type="checkbox"/>	<input type="checkbox"/>

3. Health Information Exchange Capabilities: For each work function listed in items 3.1 – 3.14, select the option that represents the highest level of electronic information exchange and integration capabilities used by your facility. **Exclude e-mail and fax.**

- a – **Within Facility Electronic Information Sharing:** Computer software programs within my facility allow patient information sharing among two or more databases after entering information only once. No electronic information sharing outside of my facility.
- b – **Within Corporation/Affiliated Organization Electronic Information Sharing:** Computer software programs within my facility allow patient information sharing with other organizations in the same network or system (e.g., corporate headquarters or other facilities in corporation; hospital in same health delivery system). No electronic information sharing with non-affiliated providers or organizations.
- c – **Electronic Information Sharing with Non-Affiliated Organizations:** My facility's computer system exchanges (sends and/or receives) electronic patient information with one or more non-affiliated providers or organizations.
- d - **None**

Function/Application	a Within Facility Electronic Information Sharing	b Within Corporation/ Affiliated Organization Electronic Information Sharing	c Send and/or Receive and Integrate Electronic Information with Non-Affiliated Provider	None
3.1 Resident (Patient) Demographics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Advance Directives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Resident Medical History	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Clinical Notes and Observations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Lists: Problems, Allergies, Meds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6 MDS Assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7 Non-MDS Assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8 Care Plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.9 Summary Reports (discharge, transfer, consults)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.10 Lab Orders and Results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.11 Radiology Orders and Results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.12 Diagnostic Test Orders and Results Other than Radiology and Labs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.13 Med Orders / E-Prescribing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.14 Public Health Reporting (e.g., tuberculosis)	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>

4. Electronic Systems to Capture and Query Information Relevant to Health Care Quality: Which of the following electronic systems or reports does your facility use to capture and query information relevant to health care quality? **Mark all that apply.**

- a - No electronic systems used for quality management and reporting activities
- b - Incident reporting
- c - Tracking adverse occurrences (e.g., falls, medication errors, infections)
- d - Calculation of outcomes from MDS or other assessment data (e.g., hospitalization)
- e - Risk audits for quality areas of concern for surveyors (e.g., pressure ulcers)
- f - "Dashboard Reports" or composite reports that present data on several key quality indicators (e.g., hospitalizations, medications or treatments due/past due but not given, infections and falls)
- g - Occupancy rates and trends
- h - Other (please specify): _____

5. Electronic Summary Reports: Which of the following electronic summary reports do you use? **Mark all that apply.**

- a - No electronic summary reports used
- b - Transfer
- c - Discharge
- d - Consults
- e - Other (please specify): _____

6. Telehealth: Does your facility use telehealth capabilities? Telehealth is defined as the use of electronic communication and information technologies to allow direct interaction between providers and patients in different locations (e.g., wound consultation by a physician at an offsite location using audiovisual equipment; interpretation of a real-time EKG reading by an offsite physician).

- a - No
- b - Yes

7. Telemonitoring

a. Does your facility use telemonitoring capabilities (e.g., sensors to monitor resident wandering, sleep patterns; enuresis monitoring)?

- a - No
- b - Yes

b. Is information obtained through telemonitoring electronically incorporated into other electronic health records of programs at your facility?

- a - No
- b - Yes

8. Perceived Barriers to HIT Adoption and Use: Indicate which factors below you perceive to be a major barrier, minor barrier, or not a barrier to purchasing and/or using electronic system(s) for clinical work functions at your facility.

BARRIER	<u>Major Barrier</u>	<u>Minor Barrier</u>	<u>Not a Barrier</u>
a - Financial Barriers (e.g., needed capital, uncertain return on investment)			
b - Organizational Barriers (e.g., staff resistance, lack of IT personnel, concern about loss of productivity during transition, transitioning historic information, capacity to train staff on new system)			
c - Legal or Regulatory Barriers (e.g., concern about confidentiality breaches, state regulations regarding electronic signatures)			
d - State of Technology (e.g., finding a system that meets facility needs, concerns that system will become obsolete, software or hardware incompatibilities with established systems, difficulty with wireless access)			

Comments: If you believe one or more specific functions (e.g., e-prescribing, MAR) are particularly affected by specific barriers, please comment on this:

9. Perceived Benefits of HIT: Indicate which factors listed below you perceive to be a major benefit, minor benefit, or not a benefit associated with electronic systems used in support of clinical work functions.

BENEFIT	Major Benefit	Minor Benefit	Not a Benefit
a - Anywhere/anytime access to clinical data (i.e., by multiple users, from multiple locations)			
b - Management oversight/control			
c - Quality monitoring			
d - Enhanced efficiency			
e - Staff empowerment and/or staff satisfaction			
f - Attractive job feature when recruiting new staff			
g - Faster and more accurate billing with integrated data systems (e.g., computer programs that can "talk to each other" by allowing information entered in one screen to fill in more than one database or program)			
h - Improved regulatory compliance			
i - Ability to electronically exchange data with other providers or organizations (e.g., hospital, MD offices, labs, pharmacy)			
j - Cost savings			
k - Resident safety (e.g., reduced medical errors)			
l - Improved care planning			
m - Improved communication within facility (e.g., among staff between shifts)			

Comments: If you believe one or more particular functions (e.g., order entry, e-prescribing, MAR) bring about specific benefits, please comment on this:

10. Facility Characteristics

10.1 In which state is your facility located? State: _____

10.2 How many beds are currently available for residents? *Include all beds set up and staffed for use whether or not they are in use by residents at the present time.*

Number of beds: _____

10.3 Is this facility part of a chain?

- a - No
- b - Yes

10.4 How would you describe this facility? Mark all that apply.

- a - Independent
- b - Nursing home or unit within a CCRC or retirement center
- c - Hospital-based skilled nursing facility
- d - Part of an integrated delivery system
- e - Other (specify): _____

10.5 Which one of the following categories best describes the ownership of this facility?

- a - For profit
- b - Private nonprofit
- c - City/county government
- d - Department of Veteran Affairs
- e - Other federal agency
- f - Other (specify): _____

APPENDIX D. EXPANDED SURVEY

This appendix contains the expanded *Survey of Use of Health Information Technology (HIT) in Nursing Homes*, formatted for pen and paper administration. The expanded survey includes both the core survey questions and the follow-up questions triggered by responses to selected core survey questions. The expanded survey is recommended for administration through an electronic, Web-based format, which would significantly reduce respondent time commitment and burden as only follow-up questions that are relevant to the respondent would appear on the computer screen.

Survey on Use of Health Information Technology (HIT) in Nursing Homes EXPANDED SURVEY (December 2009)

Question 1. Level of Automation and Plans for Additional Automation:

For each Function/Application listed in Questions 1.1 – 1.21, please:

- **Mark Yes or No** to indicate whether your facility **Plans to Expand Current Automated Capabilities** for the function/application; AND
- **Mark a, b, or c** to indicate the **Level of Automation** (or computerization) currently in use at your facility - not just installed or available, but actually used - even if not facility-wide.
 - If you mark response **a**, then skip Follow-Up Questions and go to next page.
 - If you mark responses **b** or **c**, then answer Follow-Up Questions.

***Note:** Point of care is defined as an electronic/computerized system that allows the nurse, physician, aide, or other provider to enter information into an electronic record during or immediately after visits with residents. Point of care data entry involves use of equipment such as a computer laptop, handheld device (e.g., PDA), kiosk, or bar code reader to record information, rather than pen and paper notes.

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.1 Resident (Patient) Demographics	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> a - Paper Only (no automation) →GO TO NEXT PAGE		
<input type="checkbox"/> b - Combination Paper/Electronic		
<input type="checkbox"/> c - Fully Electronic, with Point of Care		

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation.

- | | |
|---|--|
| <p>1.1a. Do you have wireless capability for this function?</p> <p>a - No
b - Yes</p> <p>1.1b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?</p> <p>a - No, not certified
b - Yes, certified</p> <p>1.1c. Is the authoritative record (i.e., official, legal record) paper or electronic?</p> <p>a - Paper <i>Go to 1.1f</i>
b - Electronic</p> <p>1.1d. Although the authoritative record is electronic, does the facility still maintain a hard copy?</p> <p>a - No <i>Go to 1.1f</i>
b - Yes</p> <p>1.1e. Why is a hard copy record maintained? Mark all that apply.</p> <p>a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____</p> | <p>1.1f. Is the electronic system housed at the facility or hosted by a third party?</p> <p>a - Housed at the facility
b - Hosted offsite by a vendor</p> <p>1.1g. How does electronic documentation/data capture occur? Mark all that apply.</p> <p>a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
b - Desktop computer located at bedside
c - Laptop (e.g., on med cart)
d - PDA or other hand-held devices
e - Kiosks located outside resident rooms
f - Voice-activated dictaphones for later transcription
g - Other (specify): _____</p> <p style="text-align: center;"><i>Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)</i></p> <p>1.1h. If you are not using point of care data capture, why not? Mark all that apply.</p> <p>a - Budget restrictions
b - Concern about staff capabilities to effectively use this method
c - Staff resistance to the idea
d - No time for training
e - No technical support staff to support ongoing use
f - Other (specify): _____</p> |
|---|--|

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.2 Advance Directives	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.2a. Do you have wireless capability for this function?
 a - No
 b - Yes

1.2b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
 a - No, not certified
 b - Yes, certified

1.2c. Is the authoritative record (i.e., official, legal record) paper or electronic?
 a - Paper *Go to 1.2f*
 b - Electronic

1.2d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
 a - No *Go to 1.2f*
 b - Yes

1.2e. Why is a hard copy record maintained? Mark all that apply.
 a - For surveyors
 b - Required by the state
 c - As a back-up in case system crashes
 d - Based on advice of an attorney
 e - For business continuity purposes
 f - Other (specify): _____

1.2f. Is the electronic system housed at the facility or hosted by a third party?
 a - Housed at the facility
 b - Hosted offsite by a vendor

1.2g. How does electronic documentation/data capture occur? Mark all that apply.
 a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
 b - Desktop computer located at bedside
 c - Laptop (e.g., on med cart)
 d - PDA or other hand-held devices
 e - Kiosks located outside resident rooms
 f - Voice-activated dictaphones for later transcription
 g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.2h. If you are not using point of care data capture, why not? Mark all that apply.
 a - Budget restrictions
 b - Concern about staff capabilities to effectively use this method
 c - Staff resistance to the idea
 d - No time for training
 e - No technical support staff to support ongoing use
 f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.3 Medical History	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.3a. Do you have wireless capability for this function?
a - No
b - Yes

1.3b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.3c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.3f*
b - Electronic

1.3d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.3f*
b - Yes

1.3e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.3f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

1.3g. How does electronic documentation/data capture occur? Mark all that apply.

- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
- b - Desktop computer located at bedside
- c - Laptop (e.g., on med cart)
- d - PDA or other hand-held devices
- e - Kiosks located outside resident rooms
- f - Voice-activated dictaphones for later transcription
- g - Direct data transferred from a monitoring device or sensor
- h - Other (specify): _____

1.3h. Does the same person who generates the information (clinical note, observation, history) also enter it into the computer?
a - No
b - Yes

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.3i. If you are not using point of care data capture, why not? Mark all that apply.
a - Budget restrictions
b - Concern about staff capabilities to effectively use this method
c - Staff resistance to the idea
d - No time for training
e - No technical support staff to support ongoing use
f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.4 Clinical Notes: Attending MD	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.4a. Do you have wireless capability for this function?
a - No
b - Yes

1.4b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.4c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.4f*
b - Electronic

1.4d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.4f*
b - Yes

1.4e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.4f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

1.4g. How does electronic documentation/data capture occur? Mark all that apply.

- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
- b - Desktop computer located at bedside
- c - Laptop (e.g., on med cart)
- d - PDA or other hand-held devices
- e - Kiosks located outside resident rooms
- f - Voice-activated dictaphones for later transcription
- g - Direct data transferred from a monitoring device or sensor
- h - Other (specify): _____

1.4h. Does the same person who generates the information (clinical note, observation, history) also enter it into the computer?
a - No
b - Yes

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.4i. If you are not using point of care data capture, why not? Mark all that apply.
a - Budget restrictions
b - Concern about staff capabilities to effectively use this method
c - Staff resistance to the idea
d - No time for training
e - No technical support staff to support ongoing use
f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.5 Clinical Notes: Licensed Nurse	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.5a. Do you have wireless capability for this function?
 a - No
 b - Yes

1.5b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
 a - No, not certified
 b - Yes, certified

1.5c. Is the authoritative record (i.e., official, legal record) paper or electronic?
 a - Paper *Go to 1.5f*
 b - Electronic

1.5d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
 a - No *Go to 1.f*
 b - Yes

1.5e. Why is a hard copy record maintained? Mark all that apply.
 a - For surveyors
 b - Required by the state
 c - As a back-up in case system crashes
 d - Based on advice of an attorney
 e - For business continuity purposes
 f - Other (specify): _____

1.5f. Is the electronic system housed at the facility or hosted by a third party?
 a - Housed at the facility
 b - Hosted offsite by a vendor

1.5g. How does electronic documentation/data capture occur? Mark all that apply.

- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
- b - Desktop computer located at bedside
- c - Laptop (e.g., on med cart)
- d - PDA or other hand-held devices
- e - Kiosks located outside resident rooms
- f - Voice-activated dictaphones for later transcription
- g - Direct data transferred from a monitoring device or sensor
- h - Other (specify): _____

1.5h. Does the same person who generates the information (clinical note, observation, history) also enter it into the computer?
 a - No
 b - Yes

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.5i. If you are not using point of care data capture, why not? Mark all that apply.
 a - Budget restrictions
 b - Concern about staff capabilities to effectively use this method
 c - Staff resistance to the idea
 d - No time for training
 e - No technical support staff to support ongoing use
 f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.6 Clinical Notes: CNA Observations and Notes	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.6a. Do you have wireless capability for this function?
 a - No
 b - Yes

1.6b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
 a - No, not certified
 b - Yes, certified

1.6c. Is the authoritative record (i.e., official, legal record) paper or electronic?
 a - Paper *Go to 1.6f*
 b - Electronic

1.6d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
 a - No *Go to 1.6f*
 b - Yes

1.6e. Why is a hard copy record maintained? Mark all that apply.
 a - For surveyors
 b - Required by the state
 c - As a back-up in case system crashes
 d - Based on advice of an attorney
 e - For business continuity purposes
 f - Other (specify): _____

1.6f. Is the electronic system housed at the facility or hosted by a third party?
 a - Housed at the facility
 b - Hosted offsite by a vendor

1.6g. How does electronic documentation/data capture occur? Mark all that apply.

- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
- b - Desktop computer located at bedside
- c - Laptop (e.g., on med cart)
- d - PDA or other hand-held devices
- e - Kiosks located outside resident rooms
- f - Voice-activated dictaphones for later transcription
- g - Direct data transferred from a monitoring device or sensor
- h - Other (specify): _____

1.6h. Does the same person who generates the information (clinical note, observation, history) also enter it into the computer?
 a - No
 b - Yes

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.6i. If you are not using point of care data capture, why not? Mark all that apply.
 a - Budget restrictions
 b - Concern about staff capabilities to effectively use this method
 c - Staff resistance to the idea
 d - No time for training
 e - No technical support staff to support ongoing use
 f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.7 Clinical Notes: Other Disciplines (social services, therapy, dietary, others)	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.7a. Do you have wireless capability for this function?
a - No
b - Yes

1.7b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.7c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.7f*
b - Electronic

1.7d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.7f*
b - Yes

1.7e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.7f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

1.7g. How does electronic documentation/data capture occur? Mark all that apply.

- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
- b - Desktop computer located at bedside
- c - Laptop (e.g., on med cart)
- d - PDA or other hand-held devices
- e - Kiosks located outside resident rooms
- f - Voice-activated dictaphones for later transcription
- g - Direct data transferred from a monitoring device or sensor
- h - Other (specify): _____

1.7h. Does the same person who generates the information (clinical note, observation, history) also enter it into the computer?
a - No
b - Yes

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.7i. If you are not using point of care data capture, why not? Mark all that apply.

- a - Budget restrictions
- b - Concern about staff capabilities to effectively use this method
- c - Staff resistance to the idea
- d - No time for training
- e - No technical support staff to support ongoing use
- f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.8 Problem List (resident diagnoses, conditions, and limitations requiring facility evaluation, treatment, and monitoring)	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.8a. Do you have wireless capability for this function?
a - No
b - Yes

1.8b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.8c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.8f*
b - Electronic

1.8d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.8f*
b - Yes

1.8e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.8f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

1.8g. How does electronic documentation/data capture occur? Mark all that apply.
a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
b - Desktop computer located at bedside
c - Laptop (e.g., on med cart)
d - PDA or other hand-held devices
e - Kiosks located outside resident rooms
f - Voice-activated dictaphones for later transcription
g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.8h. If you are not using point of care data capture, why not? Mark all that apply.
a - Budget restrictions
b - Concern about staff capabilities to effectively use this method
c - Staff resistance to the idea
d - No time for training
e - No technical support staff to support ongoing use
f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.9 Allergy List	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.9a. Do you have wireless capability for this function?
 a - No
 b - Yes

1.9b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
 a - No, not certified
 b - Yes, certified

1.9c. Is the authoritative record (i.e., official, legal record) paper or electronic?
 a - Paper *Go to 1.9f*
 b - Electronic

1.9d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
 a - No *Go to 1.9f*
 b - Yes

1.9e. Why is a hard copy record maintained? Mark all that apply.
 a - For surveyors
 b - Required by the state
 c - As a back-up in case system crashes
 d - Based on advice of an attorney
 e - For business continuity purposes
 f - Other (specify): _____

1.9f. Is the electronic system housed at the facility or hosted by a third party?
 a - Housed at the facility
 b - Hosted offsite by a vendor

1.9g. How does electronic documentation/data capture occur? Mark all that apply.
 a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
 b - Desktop computer located at bedside
 c - Laptop (e.g., on med cart)
 d - PDA or other hand-held devices
 e - Kiosks located outside resident rooms
 f - Voice-activated dictaphones for later transcription
 g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.9h. If you are not using point of care data capture, why not? Mark all that apply.
 a - Budget restrictions
 b - Concern about staff capabilities to effectively use this method
 c - Staff resistance to the idea
 d - No time for training
 e - No technical support staff to support ongoing use
 f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.10 Medication Administration Record (MAR)	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.10a. Do you have wireless capability for this function?
a - No
b - Yes

1.10b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.10c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.10f*
b - Electronic

1.10d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.10f*
b - Yes

1.10e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.10f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

1.10g. How does electronic documentation/data capture occur? Mark all that apply.
a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
b - Desktop computer located at bedside
c - Laptop (e.g., on med cart)
d - PDA or other hand-held devices
e - Kiosks located outside resident rooms
f - Voice-activated dictaphones for later transcription
g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.10h. If you are not using point of care data capture, why not? Mark all that apply.
a - Budget restrictions
b - Concern about staff capabilities to effectively use this method
c - Staff resistance to the idea
d - No time for training
e - No technical support staff to support ongoing use
f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.11 Treatment Administration Record (TAR)	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

- 1.11a. Do you have wireless capability for this function?**
- a - No
 - b - Yes

- 1.11b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?**
- a - No, not certified
 - b - Yes, certified

- 1.11c. Is the authoritative record (i.e., official, legal record) paper or electronic?**
- a - Paper *Go to 1.11f*
 - b - Electronic

- 1.11d. Although the authoritative record is electronic, does the facility still maintain a hard copy?**
- a - No *Go to 1.11f*
 - b - Yes

- 1.11e. Why is a hard copy record maintained? Mark all that apply.**
- a - For surveyors
 - b - Required by the state
 - c - As a back-up in case system crashes
 - d - Based on advice of an attorney
 - e - For business continuity purposes
 - f - Other (specify): _____

- 1.11f. Is the electronic system housed at the facility or hosted by a third party?**
- a - Housed at the facility
 - b - Hosted offsite by a vendor

- 1.11g. How does electronic documentation/data capture occur? Mark all that apply.**
- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
 - b - Desktop computer located at bedside
 - c - Laptop (e.g., on med cart)
 - d - PDA or other hand-held devices
 - e - Kiosks located outside resident rooms
 - f - Voice-activated dictaphones for later transcription
 - g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

- 1.11h. If you are not using point of care data capture, why not? Mark all that apply.**
- a - Budget restrictions
 - b - Concern about staff capabilities to effectively use this method
 - c - Staff resistance to the idea
 - d - No time for training
 - e - No technical support staff to support ongoing use
 - f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.12 MDS Assessment/RAPs	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.12a. Do you have wireless capability for this function?
 a - No
 b - Yes

1.12b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
 a - No, not certified
 b - Yes, certified

1.12c. Is the authoritative record (i.e., official, legal record) paper or electronic?
 a - Paper *Go to 1.12f*
 b - Electronic

1.12d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
 a - No *Go to 1.12f*
 b - Yes

1.12e. Why is a hard copy record maintained? Mark all that apply.
 a - For surveyors
 b - Required by the state
 c - As a back-up in case system crashes
 d - Based on advice of an attorney
 e - For business continuity purposes
 f - Other (specify): _____

1.12f. Is the electronic system housed at the facility or hosted by a third party?
 a - Housed at the facility
 b - Hosted offsite by a vendor

1.12g. How does electronic documentation/data capture occur? Mark all that apply.
 a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
 b - Desktop computer located at bedside
 c - Laptop (e.g., on med cart)
 d - PDA or other hand-held devices
 e - Kiosks located outside resident rooms
 f - Voice-activated dictaphones for later transcription
 g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.12h. If you are not using point of care data capture, why not? Mark all that apply.
 a - Budget restrictions
 b - Concern about staff capabilities to effectively use this method
 c - Staff resistance to the idea
 d - No time for training
 e - No technical support staff to support ongoing use
 f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.13 Assessments other than MDS	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

- 1.13a. Do you have wireless capability for this function?**
- a - No
 - b - Yes

- 1.13b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?**
- a - No, not certified
 - b - Yes, certified

- 1.13c. Is the authoritative record (i.e., official, legal record) paper or electronic?**
- a - Paper *Go to 1.13f*
 - b - Electronic

- 1.13d. Although the authoritative record is electronic, does the facility still maintain a hard copy?**
- a - No *Go to 1.13f*
 - b - Yes

- 1.13e. Why is a hard copy record maintained? Mark all that apply.**
- a - For surveyors
 - b - Required by the state
 - c - As a back-up in case system crashes
 - d - Based on advice of an attorney
 - e - For business continuity purposes
 - f - Other (specify): _____

- 1.13f. Is the electronic system housed at the facility or hosted by a third party?**
- a - Housed at the facility
 - b - Hosted offsite by a vendor

- 1.13g. How does electronic documentation/data capture occur? Mark all that apply.**
- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
 - b - Desktop computer located at bedside
 - c - Laptop (e.g., on med cart)
 - d - PDA or other hand-held devices
 - e - Kiosks located outside resident rooms
 - f - Voice-activated dictaphones for later transcription
 - g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

- 1.13h. If you are not using point of care data capture, why not? Mark all that apply.**
- a - Budget restrictions
 - b - Concern about staff capabilities to effectively use this method
 - c - Staff resistance to the idea
 - d - No time for training
 - e - No technical support staff to support ongoing use
 - f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.14 Care Plan	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

- 1.14a. Do you have wireless capability for this function?**
- a - No
 - b - Yes

- 1.14b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?**
- a - No, not certified
 - b - Yes, certified

- 1.14c. Is the authoritative record (i.e., official, legal record) paper or electronic?**
- a - Paper *Go to 1.14f*
 - b - Electronic

- 1.14d. Although the authoritative record is electronic, does the facility still maintain a hard copy?**
- a - No *Go to 1.14f*
 - b - Yes

- 1.14e. Why is a hard copy record maintained? Mark all that apply.**
- a - For surveyors
 - b - Required by the state
 - c - As a back-up in case system crashes
 - d - Based on advice of an attorney
 - e - For business continuity purposes
 - f - Other (specify): _____

- 1.14f. Is the electronic system housed at the facility or hosted by a third party?**
- a - Housed at the facility
 - b - Hosted offsite by a vendor

- 1.14g. How does electronic documentation/data capture occur? Mark all that apply.**
- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
 - b - Desktop computer located at bedside
 - c - Laptop (e.g., on med cart)
 - d - PDA or other hand-held devices
 - e - Kiosks located outside resident rooms
 - f - Voice-activated dictaphones for later transcription
 - g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

- 1.14h. If you are not using point of care data capture, why not? Mark all that apply.**
- a - Budget restrictions
 - b - Concern about staff capabilities to effectively use this method
 - c - Staff resistance to the idea
 - d - No time for training
 - e - No technical support staff to support ongoing use
 - f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.15 Task List (e.g., CNA workflow)	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.15a. Do you have wireless capability for this function?
a - No
b - Yes

1.15b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.15c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.15f*
b - Electronic

1.15d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.15f*
b - Yes

1.15e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.15f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

1.15g. How does electronic documentation/data capture occur? Mark all that apply.
a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
b - Desktop computer located at bedside
c - Laptop (e.g., on med cart)
d - PDA or other hand-held devices
e - Kiosks located outside resident rooms
f - Voice-activated dictaphones for later transcription
g - Other (specify): _____

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.15h. If you are not using point of care data capture, why not? Mark all that apply.
a - Budget restrictions
b - Concern about staff capabilities to effectively use this method
c - Staff resistance to the idea
d - No time for training
e - No technical support staff to support ongoing use
f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.16 Medication Order Entry	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.16a. Do you have wireless capability for this function?
a - No
b - Yes

1.16b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.16c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.16f*
b - Electronic

1.16d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.16f*
b - Yes

1.16e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.16f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

1.16g. How does electronic documentation/data capture occur? Mark all that apply.

- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
- b - Desktop computer located at bedside
- c - Laptop (e.g., on med cart)
- d - PDA or other hand-held devices
- e - Kiosks located outside resident rooms
- f - Voice-activated dictaphones for later transcription
- g - Provider enters orders from a remote location via Web interface or other remote access to facility system
- h - Other (specify): _____

1.16h. Does the prescribing clinician directly enter the order into the electronic system?
a - No
b - Yes

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.16i. If you are not using point of care data capture, why not? Mark all that apply.
a - Budget restrictions
b - Concern about staff capabilities to effectively use this method
c - Staff resistance to the idea
d - No time for training
e - No technical support staff to support ongoing use
f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.17 Other Order Entry	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.17a. Do you have wireless capability for this function?
a - No
b - Yes

1.17b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.17c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.17f*
b - Electronic

1.17d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.17f*
b - Yes

1.17e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.17f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

1.17g. How does electronic documentation/data capture occur? Mark all that apply.

- a - Desktop computer in a central location (e.g., nursing station) – No point of care data capture
- b - Desktop computer located at bedside
- c - Laptop (e.g., on med cart)
- d - PDA or other hand-held devices
- e - Kiosks located outside resident rooms
- f - Voice-activated dictaphones for later transcription
- g - Provider enters orders from a remote location via Web interface or other remote access to facility system
- h - Other (specify): _____

1.17h. Does the prescribing clinician directly enter the order into the electronic system?
a - No
b - Yes

Respond to the following if selected option b for Level of Automation (skip to next page if selected option c)

1.17i. If you are not using point of care data capture, why not? Mark all that apply.
a - Budget restrictions
b - Concern about staff capabilities to effectively use this method
c - Staff resistance to the idea
d - No time for training
e - No technical support staff to support ongoing use
f - Other (specify): _____

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.18 Results Viewing – Labs	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

- | | |
|--|---|
| <p>1.18a. Do you have wireless capability for this function?
 a - No
 b - Yes</p> <p>1.18b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
 a - No, not certified
 b - Yes, certified</p> <p>1.18c. Is the authoritative record (i.e., official, legal record) paper or electronic?
 a - Paper <i>Go to 1.18f</i>
 b - Electronic</p> <p>1.18d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
 a - No <i>Go to 1.18f</i>
 b - Yes</p> | <p>1.18e. Why is a hard copy record maintained? Mark all that apply.
 a - For surveyors
 b - Required by the state
 c - As a back-up in case system crashes
 d - Based on advice of an attorney
 e - For business continuity purposes
 f - Other (specify): _____</p> <p>1.18f. Is the electronic system housed at the facility or hosted by a third party?
 a - Housed at the facility
 b - Hosted offsite by a vendor</p> |
|--|---|

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.19 Results Viewing – Radiology (e.g., x-rays)	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

- | | |
|---|--|
| <p>1.19a. Do you have wireless capability for this function?</p> <ul style="list-style-type: none"> a - No b - Yes <p>1.19b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?</p> <ul style="list-style-type: none"> a - No, not certified b - Yes, certified <p>1.19c. Is the authoritative record (i.e., official, legal record) paper or electronic?</p> <ul style="list-style-type: none"> a - Paper Go to 1.19f b - Electronic | <p>1.19d. Although the authoritative record is electronic, does the facility still maintain a hard copy?</p> <ul style="list-style-type: none"> a - No Go to 1.19f b - Yes <p>1.19e. Why is a hard copy record maintained? Mark all that apply.</p> <ul style="list-style-type: none"> a - For surveyors b - Required by the state c - As a back-up in case system crashes d - Based on advice of an attorney e - For business continuity purposes f - Other (specify): _____ <p>1.19f. Is the electronic system housed at the facility or hosted by a third party?</p> <ul style="list-style-type: none"> a - Housed at the facility b - Hosted offsite by a vendor |
|---|--|

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.20 Results Viewing – Diagnostic Tests other than Radiology or Labs (e.g., lung function, stress tests)	<input type="checkbox"/>	<input type="checkbox"/>

- a - Paper Only (no automation) →GO TO NEXT PAGE
- b - Combination Paper / Electronic
- c - Fully Electronic, with Point of Care

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

1.20a. Do you have wireless capability for this function?
a - No
b - Yes

1.20b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
a - No, not certified
b - Yes, certified

1.20c. Is the authoritative record (i.e., official, legal record) paper or electronic?
a - Paper *Go to 1.20f*
b - Electronic

1.20d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
a - No *Go to 1.20f*
b - Yes

1.20e. Why is a hard copy record maintained? Mark all that apply.
a - For surveyors
b - Required by the state
c - As a back-up in case system crashes
d - Based on advice of an attorney
e - For business continuity purposes
f - Other (specify): _____

1.20f. Is the electronic system housed at the facility or hosted by a third party?
a - Housed at the facility
b - Hosted offsite by a vendor

Question 1. Level of Automation and Plans for Additional Automation (continued)

Level of Automation — Function/Application	Plans to Expand Automation Capabilities	
	Yes	No
1.21 Results Viewing – Consults	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> a - Paper Only (no automation) →GO TO NEXT PAGE <input type="checkbox"/> b - Combination Paper / Electronic <input type="checkbox"/> c - Fully Electronic, with Point of Care		

FOLLOW-UP QUESTIONS: Respond to the following if selected option b or c for Level of Automation

- | | |
|--|---|
| <p>1.21a. Do you have wireless capability for this function?
 a - No
 b - Yes</p> <p>1.21b. Is the electronic application/function certified either as a stand-alone application or as part of a certified electronic health record or system?
 a - No, not certified
 b - Yes, certified</p> <p>1.21c. Is the authoritative record (i.e., official, legal record) paper or electronic?
 a - Paper <i>Go to 1.21f</i>
 b - Electronic</p> | <p>1.21d. Although the authoritative record is electronic, does the facility still maintain a hard copy?
 a - No <i>Go to 1.21f</i>
 b - Yes</p> <p>1.21e. Why is a hard copy record maintained? Mark all that apply.
 a - For surveyors
 b - Required by the state
 c - As a back-up in case system crashes
 d - Based on advice of an attorney
 e - For business continuity purposes
 f - Other (specify): _____</p> <p>1.21f. Is the electronic system housed at the facility or hosted by a third party?
 a - Housed at the facility
 b - Hosted offsite by a vendor</p> |
|--|---|

Question 2. Automated Clinical Decision Support: For each Function/Application listed in items 2.1 – 2.9, **Mark Yes or No** to indicate whether automated clinical decision support is used. Examples include computerized alerts triggered when unexpected or problematic information is entered (e.g., out-of-range date of birth; prescription for a drug with potential contraindications for a particular resident) or reminders for scheduled events (e.g., lab draws, immunizations). Answer Follow-up questions as indicated.

Automated Clinical Decision Support — Function/Application

2.1 Clinical Notes and Observations (by any or all clinical staff)

- No →GO TO Question 2.2
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- | | |
|---|---|
| <p>2.1a. Which of the following automated decision support tools does your facility use for this function? Mark all that apply.</p> <ul style="list-style-type: none"> a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth) b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions) c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs) d - Reminders for scheduled events (e.g., lab draws, immunizations) e - Lab results management f - Alerts for SOM/F-tag compliance g - Other (specify): _____ | <p>2.1b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? Mark all that apply.</p> <ul style="list-style-type: none"> a - Created entirely by facility staff b - Created entirely by an outside entity (e.g., vendor developed, standardized library) c - Combination – the facility modified/customized a standard set created by an outside entity <p>2.1c. What is the timing of decision support alerts and guidance for this function?</p> <ul style="list-style-type: none"> a - Real time – when using the electronic system b - Near time c - End of shift d - Weekly e - Monthly f - Other (specify): _____ |
|---|---|

Automated Clinical Decision Support — Function/Application

2.2 Medication Administration Record (MAR)

- No →GO TO Question 2.3
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- | | |
|---|---|
| <p>2.2a. Which of the following automated decision support tools does your facility use for this function? Mark all that apply.</p> <ul style="list-style-type: none"> a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth) b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions) c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs) d - Reminders for scheduled events (e.g., lab draws, immunizations) e - Lab results management f - Alerts for SOM/F-tag compliance g - Other (specify): _____ | <p>2.2b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? Mark all that apply.</p> <ul style="list-style-type: none"> a - Created entirely by facility staff b - Created entirely by an outside entity (e.g., vendor developed, standardized library) c - Combination – the facility modified/customized a standard set created by an outside entity <p>2.2c. What is the timing of decision support alerts and guidance for this function?</p> <ul style="list-style-type: none"> a - Real time – when using the electronic system b - Near time c - End of shift d - Weekly e - Monthly f - Other (specify): _____ |
|---|---|

Question 2. Automated Clinical Decision Support (continued)

Automated Clinical Decision Support — Function/Application

2.3 Treatment Administration Record (TAR)

- No →GO TO Question 2.4
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- | | |
|--|---|
| <p>2.3a. Which of the following automated decision support tools does your facility use for this function? <i>Mark all that apply.</i></p> <ul style="list-style-type: none">a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth)b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions)c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs)d - Reminders for scheduled events (e.g., lab draws, immunizations)e - Lab results managementf - Alerts for SOM/F-tag complianceg - Other (specify): _____ | <p>2.3b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? <i>Mark all that apply.</i></p> <ul style="list-style-type: none">a - Created entirely by facility staffb - Created entirely by an outside entity (e.g., vendor developed, standardized library)c - Combination – the facility modified/customized a standard set created by an outside entity <p>2.3c. What is the timing of decision support alerts and guidance for this function?</p> <ul style="list-style-type: none">a - Real time – when using the electronic systemb - Near timec - End of shiftd - Weeklye - Monthlyf - Other (specify): _____ |
|--|---|

Automated Clinical Decision Support — Function/Application

2.4 Assessment (MDS and others)

- No →GO TO Question 2.5
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- | | |
|--|---|
| <p>2.4a. Which of the following automated decision support tools does your facility use for this function? <i>Mark all that apply.</i></p> <ul style="list-style-type: none">a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth)b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions)c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs)d - Reminders for scheduled events (e.g., lab draws, immunizations)e - Lab results managementf - Alerts for SOM/F-tag complianceg - Other (specify): _____ | <p>2.4b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? <i>Mark all that apply.</i></p> <ul style="list-style-type: none">a - Created entirely by facility staffb - Created entirely by an outside entity (e.g., vendor developed, standardized library)c - Combination – the facility modified/customized a standard set created by an outside entity <p>2.4c. What is the timing of decision support alerts and guidance for this function?</p> <ul style="list-style-type: none">a - Real time – when using the electronic systemb - Near timec - End of shiftd - Weeklye - Monthlyf - Other (specify): _____ |
|--|---|

Question 2. Automated Clinical Decision Support (continued)

Automated Clinical Decision Support — Function/Application

2.5 Care Plan

- No →GO TO Question 2.6
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- | | |
|--|---|
| <p>2.5a. Which of the following automated decision support tools does your facility use for this function? <i>Mark all that apply.</i></p> <ul style="list-style-type: none">a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth)b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions)c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs)d - Reminders for scheduled events (e.g., lab draws, immunizations)e - Lab results managementf - Alerts for SOM/F-tag complianceg - Other (specify): _____ | <p>2.5b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? <i>Mark all that apply.</i></p> <ul style="list-style-type: none">a - Created entirely by facility staffb - Created entirely by an outside entity (e.g., vendor developed, standardized library)c - Combination – the facility modified/customized a standard set created by an outside entity <p>2.5c. What is the timing of decision support alerts and guidance for this function?</p> <ul style="list-style-type: none">a - Real time – when using the electronic systemb - Near timec - End of shiftd - Weeklye - Monthlyf - Other (specify): _____ |
|--|---|

Automated Clinical Decision Support — Function/Application

2.6 Med Orders/E-Prescribing

- No →GO TO Question 2.7
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- | | |
|--|---|
| <p>2.6a. Which of the following automated decision support tools does your facility use for this function? <i>Mark all that apply.</i></p> <ul style="list-style-type: none">a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth)b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions)c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs)d - Reminders for scheduled events (e.g., lab draws, immunizations)e - Lab results managementf - Alerts for SOM/F-tag complianceg - Other (specify): _____ | <p>2.6b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? <i>Mark all that apply.</i></p> <ul style="list-style-type: none">a - Created entirely by facility staffb - Created entirely by an outside entity (e.g., vendor developed, standardized library)c - Combination – the facility modified/customized a standard set created by an outside entity <p>2.6c. What is the timing of decision support alerts and guidance for this function?</p> <ul style="list-style-type: none">a - Real time – when using the electronic systemb - Near timec - End of shiftd - Weeklye - Monthlyf - Other (specify): _____ |
|--|---|

Question 2. Automated Clinical Decision Support (continued)

Function/Application

2.7 Lab Orders and Results

- No →GO TO Question 2.8
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- | | |
|---|--|
| <p>2.7a. Which of the following automated decision support tools does your facility use for this function? Mark all that apply.</p> <ul style="list-style-type: none">a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth)b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions)c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs)d - Reminders for scheduled events (e.g., lab draws, immunizations)e - Lab results managementf - Alerts for SOM/F-tag complianceg - Other (specify): _____ | <p>2.7b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? Mark all that apply.</p> <ul style="list-style-type: none">a - Created entirely by facility staffb - Created entirely by an outside entity (e.g., vendor developed, standardized library)c - Combination – the facility modified/customized a standard set created by an outside entity <p>2.7c. What is the timing of decision support alerts and guidance for this function?</p> <ul style="list-style-type: none">a - Real time – when using the electronic systemb - Near timec - End of shiftd - Weeklye - Monthlyf - Other (specify): _____ |
|---|--|

Function/Application

2.8 Radiology Orders and Results

- No →GO TO Question 2.9
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- | | |
|---|--|
| <p>2.8a. Which of the following automated decision support tools does your facility use for this function? Mark all that apply.</p> <ul style="list-style-type: none">a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth)b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions)c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs)d - Reminders for scheduled events (e.g., lab draws, immunizations)e - Lab results managementf - Alerts for SOM/F-tag complianceg - Other (specify): _____ | <p>2.8b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? Mark all that apply.</p> <ul style="list-style-type: none">a - Created entirely by facility staffb - Created entirely by an outside entity (e.g., vendor developed, standardized library)c - Combination – the facility modified/customized a standard set created by an outside entity <p>2.8c. What is the timing of decision support alerts and guidance for this function?</p> <ul style="list-style-type: none">a - Real time – when using the electronic systemb - Near timec - End of shiftd - Weeklye - Monthlyf - Other (specify): _____ |
|---|--|

Question 2. Automated Clinical Decision Support (continued)

Function/Application

2.9 Diagnostic Test Orders and Results other than Radiology and Labs

- No →GO TO Question 3
- Yes, automated clinical decision support is used

FOLLOW-UP QUESTIONS: Respond to the following if selected Yes for Automated Clinical Decision Support

- 2.9a. Which of the following automated decision support tools does your facility use for this function? Mark all that apply.**
- a - Data quality checks/illogical data alerts (e.g., out-of-range date of birth)
 - b - Clinical alerts triggered by an entry (e.g., alert for low heart rate prior to giving digoxin, outlier lab values, drug-to-drug interactions)
 - c - Workflow/guide to next steps (e.g., disease-specific medical treatment protocols; clinical pathways/standardized care plans; disease management programs)
 - d - Reminders for scheduled events (e.g., lab draws, immunizations)
 - e - Lab results management
 - f - Alerts for SOM/F-tag compliance
 - g - Other (specify): _____

- 2.9b. How were the underlying data parameters/algorithms for this function's decision support mechanism created? Mark all that apply.**
- a - Created entirely by facility staff
 - b - Created entirely by an outside entity (e.g., vendor developed, standardized library)
 - c - Combination – the facility modified/customized a standard set created by an outside entity
- 2.9c. What is the timing of decision support alerts and guidance for this function?**
- a - Real time – when using the electronic system
 - b - Near time
 - c - End of shift
 - d - Weekly
 - e - Monthly
 - f - Other (specify): _____

Question 3. Health Information Exchange Capabilities: For each work function listed in items 3.1 – 3.14, select the option that represents the highest level of electronic information exchange and integration capabilities used by your facility. **Exclude e-mail and fax.**

- a – **Within Facility Electronic Information Sharing:** Computer software programs within my facility allow patient information sharing among two or more databases after entering information only once. No electronic information sharing outside of my facility.
- b – **Within Corporation/Affiliated Organization Electronic Information Sharing:** Computer software programs within my facility allow patient information sharing with other organizations in the same network or system (e.g., corporate headquarters or other facilities in corporation; hospital in same health delivery system). No electronic information sharing with non-affiliated providers or organizations.
- c – **Electronic Information Sharing with Non-Affiliated Organizations:** My facility’s computer system exchanges (sends and/or receives) electronic patient information with one more non-affiliated providers or organizations.
- d - **None**

Health Information Exchange Capabilities — Function/Application

3.1 Resident (Patient) Demographics

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.1c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.1b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.1a
- d - None →GO TO QUESTION 3.2

FOLLOW-UP QUESTIONS

3.1a. Which of the following represents your facility’s electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.1b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- | | |
|--------------------------|--|
| a - Hospitals | g - Personal health records |
| b - Pharmacies | h - Information exchange networks (Health Information Organizations) |
| c - Home health agencies | i - Other nursing homes |
| d - Physician offices | j - Corporate office |
| e - Labs | k - Other (specify): _____ |
| f - Radiology clinics | |

3.1c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Question 3. Health Information Exchange Capabilities (continued)

Health Information Exchange Capabilities — Function/Application

3.2 Advanced Directives

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.2c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.2b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.2a
- d - None →GO TO QUESTION 3.3

FOLLOW-UP QUESTIONS

3.2a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.2b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Hospitals
- b - Pharmacies
- c - Home health agencies
- d - Physician offices
- e - Labs
- f - Radiology clinics
- g - Personal health records
- h - Information exchange networks (Health Information Organizations)
- i - Other nursing homes
- j - Corporate office
- k - Other (specify): _____

3.2c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Health Information Exchange Capabilities — Function/Application

3.3 Resident Medical History

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.3c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.3b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.3a
- d - None →GO TO QUESTION 3.4

FOLLOW-UP QUESTIONS

3.3a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.3b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Hospitals
- b - Pharmacies
- c - Home health agencies
- d - Physician offices
- e - Labs
- f - Radiology clinics
- g - Personal health records
- h - Information exchange networks (Health Information Organizations)
- i - Other nursing homes
- j - Corporate office
- k - Other (specify): _____

3.3c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Question 3. Health Information Exchange Capabilities (continued)

Health Information Exchange Capabilities — Function/Application

3.4 Clinical Notes and Observations

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.4c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.4b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.4a
- d - None →GO TO QUESTION 3.5

FOLLOW-UP QUESTIONS

3.4a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.4b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Hospitals
- b - Pharmacies
- c - Home health agencies
- d - Physician offices
- e - Labs
- f - Radiology clinics
- g - Personal health records
- h - Information exchange networks (Health Information Organizations)
- i - Other nursing homes
- j - Corporate office
- k - Other (specify): _____

3.4c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Health Information Exchange Capabilities — Function/Application

3.5 Lists: Problems, Allergies, Meds

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.5c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.5b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.5a
- d - None →GO TO QUESTION 3.6

FOLLOW-UP QUESTIONS

3.5a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.5b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Hospitals
- b - Pharmacies
- c - Home health agencies
- d - Physician offices
- e - Labs
- f - Radiology clinics
- g - Personal health records
- h - Information exchange networks (Health Information Organizations)
- i - Other nursing homes
- j - Corporate office
- k - Other (specify): _____

3.5c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Question 3. Health Information Exchange Capabilities (continued)

Health Information Exchange Capabilities — Function/Application

3.6 MDS Assessments

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.6c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.6b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.6a
- d - None →GO TO QUESTION 3.7

FOLLOW-UP QUESTIONS

3.6a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.6b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Hospitals
- b - Pharmacies
- c - Home health agencies
- d - Physician offices
- e - Labs
- f - Radiology clinics
- g - Personal health records
- h - Information exchange networks (Health Information Organizations)
- i - Other nursing homes
- j - Corporate office
- k - Other (specify): _____

3.6c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Health Information Exchange Capabilities — Function/Application

3.7 Non-MDS Assessments

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.7c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.7b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.7a
- d - None →GO TO QUESTION 3.8

FOLLOW-UP QUESTIONS

3.7a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.7b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Hospitals
- b - Pharmacies
- c - Home health agencies
- d - Physician offices
- e - Labs
- f - Radiology clinics
- g - Personal health records
- h - Information exchange networks (Health Information Organizations)
- i - Other nursing homes
- j - Corporate office
- k - Other (specify): _____

3.7c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Question 3. Health Information Exchange Capabilities (continued)

Health Information Exchange Capabilities — Function/Application

3.8 Care Plans

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.8c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.8b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.8a
- d - None →GO TO QUESTION 3.9

FOLLOW-UP QUESTIONS

3.8a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.8b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Hospitals
- b - Pharmacies
- c - Home health agencies
- d - Physician offices
- e - Labs
- f - Radiology clinics
- g - Personal health records
- h - Information exchange networks (Health Information Organizations)
- i - Other nursing homes
- j - Corporate office
- k - Other (specify): _____

3.8c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Health Information Exchange Capabilities — Function/Application

3.9 Summary Reports (discharge, transfer, consults)

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.9c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.9b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.9a
- d - None →GO TO QUESTION 3.10

FOLLOW-UP QUESTIONS

3.9a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.9b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Home health agencies
- b - Physician offices
- c - Labs
- d - Radiology clinics
- e - Personal health records
- f - Information exchange networks (Health Information Organizations)
- g - Other nursing homes
- h - Corporate office
- i - Other (specify): _____

3.9c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Question 3. Health Information Exchange Capabilities (continued)

Health Information Exchange Capabilities — Function/Application

3.10 Lab Orders and Results

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.10c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.10b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.10a
- d - None →GO TO QUESTION 3.11

FOLLOW-UP QUESTIONS

3.10a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.10b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Home health agencies
- b - Physician offices
- c - Labs
- d - Radiology clinics
- e - Personal health records
- f - Information exchange networks (Health Information Organizations)
- g - Other nursing homes
- h - Corporate office
- i - Other (specify): _____

3.10c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Health Information Exchange Capabilities — Function/Application

3.11 Radiology Orders and Results

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.11c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.11b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.11a
- d - None →GO TO QUESTION 3.12

FOLLOW-UP QUESTIONS

3.11a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.11b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Home health agencies
- b - Physician offices
- c - Labs
- d - Radiology clinics
- e - Personal health records
- f - Information exchange networks (Health Information Organizations)
- g - Other nursing homes
- h - Corporate office
- i - Other (specify): _____

3.11c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Question 3. Health Information Exchange Capabilities (continued)

Health Information Exchange Capabilities — Function/Application

3.12 Diagnostic Test Orders and Results other than Radiology and Labs

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.12c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.12b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.12a
- d - None →GO TO QUESTION 3.13

FOLLOW-UP QUESTIONS

3.12a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.12b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Home health agencies
- b - Physician offices
- c - Labs
- d - Radiology clinics
- e - Personal health records
- f - Information exchange networks (Health Information Organizations)
- g - Other nursing homes
- h - Corporate office
- i - Other (specify): _____

3.12c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Health Information Exchange Capabilities — Function/Application

3.13 Med Orders / E-Prescribing

- a - Within Facility Electronic Information Sharing →GO TO QUESTION 3.13c
- b - Within Corporation/Affiliated Organization Electronic Information Sharing →GO TO QUESTION 3.13b
- c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.13a
- d - None →GO TO QUESTION 3.14

FOLLOW-UP QUESTIONS

3.13a. Which of the following represents your facility's electronic information exchange with non-affiliated organizations?

- a - Send information to non-affiliated facilities
- b - Receive and integrate information from non-affiliated facilities
- c - Both send and receive information

3.13b. With which of the following entities does your facility exchange these electronic data? *Mark all that apply.*

- a - Home health agencies
- b - Physician offices
- c - Labs
- d - Radiology clinics
- e - Personal health records
- f - Information exchange networks (Health Information Organizations)
- g - Other nursing homes
- h - Corporate office
- i - Other (specify): _____

3.13c. Does the information exchange incorporate national health information exchange standards?

- a - No
- b - Yes

Question 3. Health Information Exchange Capabilities (continued)

Health Information Exchange Capabilities — Function/Application

3.14 Public Health Reporting (e.g., tuberculosis)

NA a - Within Facility Electronic Information Sharing

NA b - Within Corporation/Affiliated Organization Electronic Information Sharing

c - Send and/or Receive and Integrate Electronic Information from Non-affiliated Providers →GO TO QUESTION 3.14a

d - None →GO TO QUESTION 4

FOLLOW-UP QUESTIONS

3.14a. Does the information exchange incorporate national health information exchange standards?

c - No

d - Yes

4. Electronic Systems to Capture and Query Information Relevant to Health Care Quality: Which of the following electronic systems or reports does your facility use to capture and query information relevant to health care quality?

Mark all that apply.

- a - No electronic systems used for quality management and reporting activities
- b - Incident reporting
- c - Tracking adverse occurrences (e.g., falls, medication errors, infections)
- d - Calculation of outcomes from MDS or other assessment data (e.g., hospitalization)
- e - Risk audits for quality areas of concern for surveyors (e.g., pressure ulcers)
- f - "Dashboard Reports" or composite reports that present data on several key quality indicators (e.g., hospitalizations, medications or treatments due/past due but not given, infections and falls)
- g - Occupancy rates and trends
- h - Other (please specify): _____

5. Electronic Summary Reports: Which of the following electronic summary reports do you use? **Mark all that apply.**

- a - No electronic summary reports used
- b - Transfer
- c - Discharge
- d - Consults
- e - Other (please specify): _____

6. Telehealth: Does your facility use telehealth capabilities? Telehealth is defined as the use of electronic communication and information technologies to allow direct interaction between providers and patients in different locations (e.g., wound consultation by a physician at an offsite location using audiovisual equipment; interpretation of a real-time EKG reading by an offsite physician).

- a - No
- b - Yes

7. Telemonitoring

a. Does your facility use telemonitoring capabilities (e.g., sensors to monitor resident wandering, sleep patterns; enuresis monitoring)?

- a - No
- b - Yes

b. Is information obtained through telemonitoring electronically incorporated into other electronic health records of programs at your facility?

- a - No
- b - Yes

8. Perceived Barriers to HIT Adoption and Use: Indicate which factors below you perceive to be a major barrier, minor barrier, or not a barrier to purchasing and/or using electronic system(s) for clinical work functions at your facility.

BARRIER	Major Barrier	Minor Barrier	Not a Barrier
a - Financial Barriers (e.g., needed capital, uncertain return on investment)			
b - Organizational Barriers (e.g., staff resistance, lack of IT personnel, concern about loss of productivity during transition, transitioning historic information, capacity to train staff on new system)			
c - Legal or Regulatory Barriers (e.g., concern about confidentiality breaches, state regulations regarding electronic signatures)			
d - State of Technology (e.g., finding a system that meets facility needs, concerns that system will become obsolete, software or hardware incompatibilities with established systems, difficulty with wireless access)			

Comments: If you believe one or more specific functions (e.g., e-prescribing, MAR) are particularly affected by specific barriers, please comment on this:

9. Perceived Benefits of HIT: Indicate which factors listed below you perceive to be a major benefit, minor benefit, or not a benefit associated with electronic systems used in support of clinical work functions.

BENEFIT	Major Benefit	Minor Benefit	Not a Benefit
a - Anywhere/anytime access to clinical data (i.e., by multiple users, from multiple locations)			
b - Management oversight/control			
c - Quality monitoring			
d - Enhanced efficiency			
e - Staff empowerment and/or staff satisfaction			
f - Attractive job feature when recruiting new staff			
g - Faster and more accurate billing with integrated data systems (e.g., computer programs that can "talk to each other" by allowing information entered in one screen to fill in more than one database or program)			
h - Improved regulatory compliance			
i - Ability to electronically exchange data with other providers or organizations (e.g., hospital, MD offices, labs, pharmacy)			
j - Cost savings			
k - Resident safety (e.g., reduced medical errors)			
l - Improved care planning			
m - Improved communication within facility (e.g., among staff between shifts)			

Comments: If you believe one or more particular functions (e.g., order entry, e-prescribing, MAR) bring about specific benefits, please comment on this:

10. Facility Characteristics

10.1 In which state is your facility located? State: _____

10.2 How many beds are currently available for residents? *Include all beds set up and staffed for use whether or not they are in use by residents at the present time.*

Number of beds: _____

10.3 Is this facility part of a chain?

- a - No
- b - Yes

10.4 How would you describe this facility? Mark all that apply.

- a - Independent
- b - Nursing home or unit within a CCRC or retirement center
- c - Hospital-based skilled nursing facility
- d - Part of an integrated delivery system
- e - Other (specify): _____

10.5 Which one of the following categories best describes the ownership of this facility?

- a - For profit
- b - Private nonprofit
- c - City/county government
- d - Department of Veteran Affairs
- e - Other federal agency
- f - Other (specify): _____

SURVEY QUESTIONS FOR EHR ADOPTION AND USE IN NURSING HOMES: FINAL REPORT

Files Available for This Report

Main Report

HTML <http://aspe.hhs.gov/daltcp/reports/2010/EHRques.htm>
PDF <http://aspe.hhs.gov/daltcp/reports/2010/EHRques.pdf>

*APPENDIX A. Literature Review and Synthesis: Existing Surveys on Health Information Technology

HTML <http://aspe.hhs.gov/daltcp/reports/2009/HITlitrev.htm>
PDF <http://aspe.hhs.gov/daltcp/reports/2010/EHRques-A1.pdf>

* The HTML link takes the user to the original versions (HTML and PDF) of the “*Literature Review and Synthesis*”. The PDF link takes the user version included when a hard copy of “*Survey Questions for EHR Adoption and Use in Nursing Homes: Final Report*” is requested.

APPENDIX B. Technical Expert Panel Review Materials and Meeting Notes

HTML <http://aspe.hhs.gov/daltcp/reports/2010/EHRques.htm#appendB>
PDF <http://aspe.hhs.gov/daltcp/reports/2010/EHRques-A2.pdf>

APPENDIX C. Core Survey on Use of Health Information Technology in Nursing Homes

HTML <http://aspe.hhs.gov/daltcp/reports/2010/EHRques.htm#appendC>
PDF <http://aspe.hhs.gov/daltcp/reports/2010/EHRques-A2.pdf>

APPENDIX D. Expanded Survey on Use of Health Information Technology in Nursing Homes

HTML <http://aspe.hhs.gov/daltcp/reports/2010/EHRques.htm#appendD>
PDF <http://aspe.hhs.gov/daltcp/reports/2010/EHRques-A2.pdf>