

**APPENDIX A:**  
**DRAFT CASE STUDY PLAN**

# CHAPTER 1: INTRODUCTION

Having learned a great deal from reviewing recent literature and from speaking with experts in the area of health information exchange (Task 5), the Division of Health Care Policy and Research (HCPR) team is well positioned to conduct on-site case studies at four health delivery systems and affiliated and non-affiliated post-acute and/or long-term care settings. The purpose of this deliverable is to outline the plan for these case studies (Task 7), during which we will address the following overarching research questions:

1. What information is needed at times of transfer from acute care hospitals to post-acute or long-term care?
2. How is this information exchanged and how is health information technology used (or not used) to support this exchange with affiliated and unaffiliated health settings?
3. What factors support (or create barriers to) timely information exchange?
4. What policies would facilitate information exchange (including electronic information exchange)?

The original contract called for HCPR to adopt the use cases from the Federal Health Architecture Electronic Health Record work group as the basis for the data collection materials. Upon review of these use cases, the Task Order Manager (TOM), Principal Investigator, and Project Director concurred that they were not suitable to meet the needs of this project. As such, different clinical scenarios were established by the HCPR team, in collaboration with the TOM.

To address the four overarching research questions above, open-ended discussion guides and scenarios will be developed for the four site visits (draft versions of the questions that will make up the guides and scenarios can be found in Attachment A). The HCPR Research Team recognized that the guides needed to be sufficiently flexible and open-ended in order to capture the uniqueness of each systems' and PAC/LTC providers' information exchange processes. The guides and scenarios were designed to maintain a balance between the amount of *clinical* and *technical* information gathered at the site visits. Because so few skilled nursing facilities and home health agencies have adopted electronic health record systems (Kaushal et al., 2005), it is anticipated that there may be limited technical information at some sites. It also is possible that the unaffiliated PAC/LTC providers may predominantly rely on paper-based communication and this may result in a shift in focus toward a more clinically oriented discussion. Regardless, it will be important to understand what data are and are not exchanged through whatever medium is used.

The HCPR team will use various approaches to obtain the needed information. For example, at the selected health delivery systems and PAC/LTC providers, the HCPR site visit team will conduct discussions with different individuals (e.g., clinical, administrative, health information technology [HIT] staff); observe the use of HIT by the selected health care delivery system for the creation, storage, and/or exchange of information needed by PAC/LTC providers; and run through various scenarios these settings are likely to encounter, determining how the data exchange would be handled given these circumstances.

Each site visit will essentially be comprised of two site visits--one to the health delivery system and an *affiliated* PAC/LTC setting, and the other to three *unaffiliated* PAC/LTC providers in the area. This design has increased the complexity of scheduling and conducting the visits at all health settings. Time management while on site will be crucial for the success of the visit and the guides are developed to ensure that all requisite information will be successfully obtained. To this end, the two-part site visits will attempt to obtain as much information from the health delivery systems regarding their health information systems prior to the visit. These information systems also may be discussed during the site visit, but the HCPR team will be cautious that these discussions do not detract from the main purpose of the site visits or consume a disproportionate amount of time. The site visit team will attempt to strike a balance between the amount of time devoted to gathering information about the health care delivery system and the unaffiliated PAC/LTC sites. When pressed for time, the latter focus will receive higher priority.

# **CHAPTER 2: SAMPLING POTENTIAL SITES**

## **INTRODUCTION**

Four health delivery systems have been selected for participation as case study sites. Within these systems, three unaffiliated post-acute or long-term care settings have been identified. In this chapter, we describe the criteria used for site screening and selection, and the process through which we recruited the final four sites.

## **CRITERIA FOR SITE SELECTION**

### ***Identification of Candidate Health Delivery Systems***

For the purposes of this study, a health delivery system initially was defined as an entity that included a hospital with one or more affiliated or owned physician office practice(s), outpatient clinic(s), laboratories, and/or pharmacies. After an interview with Erickson Continuous Care Retirement Communities (CCRC), some of which include a medical center, a certified home health agency, inpatient and outpatient rehabilitation services, a skilled nursing facility, and an assisted living facility, it was decided to broaden the definition to include this type of health delivery system.

Suggestions from the Agency for Healthcare Research and Quality (AHRQ) and the ASPE TOM, and the site's national reputation of HIT readiness informed the development of our list. We initially identified 14 candidate health delivery systems and prioritized them according to the following broad criteria:

1. The type and scope of electronic health information creation, storage, and exchange believed to be implemented in the system.
2. The anticipated level of effort required to gather data about the information exchange mechanisms at each system.
3. To the extent possible, how the health delivery system is representative of those around the country and/or provides an instructive contrast to the other sites selected.

The following were specific criteria used to further prioritize candidate sites:

1. An electronic health information system that allows for the exchange of health information across two or more settings (e.g., acute care hospital and physician offices, laboratory, pharmacy, radiology, discharge information), and preferably documentation to explain the components and capabilities of the health information system.

2. Unaffiliated post-acute and long-term care settings (defined as skilled nursing facilities, nursing homes, and home health agencies) in the same general geographic location. (Unaffiliated, for the purposes of this project, is defined as not being owned by the health delivery system, however, the health delivery system is a referral source).
3. Preferably, at least six months experience with the software application(s) that support information exchange.
4. Amenable to a site visit by a three-person team of data collectors with access to a variety of staff (including clinicians, information technology specialists, and managers).
5. If possible, at least one of the four sites would be located in a rural area.

## PRIORITIZED LIST OF POTENTIAL SITES

Table A.1 shows the prioritized list of sites using the criteria noted above. Although attempts were made to contact representatives from the majority of these institutions, in some cases that was not possible. In other cases, we spoke with individuals who may not have had the organization's long view; that is, we did not always get to speak with the leaders at the organization. Finally, the places that we vetted did not have the opportunity to review the accuracy of the information provided in this document, including Table A.1 below.

<b>TABLE A.1: Potential Site Visit List</b>					
<b>Health Delivery System and Location</b>	<b>Exchange Across 2+ Settings?</b>	<b>Has Unaffiliated PAC/LTC?</b>	<b>6 m. + Experience with Software?</b>	<b>Amenable to Site Visit?</b>	<b>Rural Area?</b>
Intermountain Health Care, Salt Lake City, Utah	Yes	Yes	Yes	Yes	No
Maimonides, Brooklyn, New York	Yes	Yes	In transition to new software?	Not asked	No
Mercy Medical Center, Rural Iowa Redesign of Care Delivery with EHR Functions, Mason City, Iowa	Yes	Yes	Some sites yes, some are in process of rollout	No	Yes
Meridian Health, Jersey Shore University Medical Center, Jersey City, New Jersey	Yes	Yes	Yes	Not asked	No
Montefiore Medical Center, Bronx, New York	Yes	Yes	Yes	Yes	No
Indiana Health Information Exchange, Indianapolis, Indiana	Yes	Yes	Yes	Yes	No
Erickson Continuous Care Retirement Communities, Catonsville, Maryland	Yes	Yes	Yes	Yes	No
Taconic Independent Physicians Association, as part of the Taconic Health Information Network & Community (THINC), Fishkill, New York	Yes	Unknown	Yes	Not asked	No
Allina Hospitals and Clinics, Minneapolis, Minnesota	Yes	Yes	Yes	Not asked	No
Rhode Island HIE project, Providence, Rhode Island	Unknown	Unknown	Unknown	Not asked	Rural/Urban

<b>Health Delivery System and Location</b>	<b>Exchange Across 2+ Settings?</b>	<b>Has Unaffiliated PAC/LTC?</b>	<b>6 m. + Experience with Software?</b>	<b>Amenable to Site Visit?</b>	<b>Rural Area?</b>
Deaconess Billings Clinic, Billings, Montana	Yes	Yes	Yes	Not asked	Yes
Kaiser Permanente, Oregon	Yes	Yes	Yes	Not asked	No
Partners Healthcare System, Inc., Boston, Massachusetts	Yes	Yes	Yes	Not asked	No
PeaceHealth, Eugene, Oregon	Yes	Yes	Yes	Not asked	No

**SCREENING/RECRUITMENT PROCESS**

A screening/recruitment process was used to determine if a site met the selection criteria, could devote sufficient resources for a site visit, and would provide access to key information and operational processes. The process included the following steps:

1. Creation of a site call list.
2. Initiation of a calling process to identify an initial contact person to assist in screening the site for more detail about the system.
3. When a site met the selection criteria, negotiations were begun by the Project Director to determine the feasibility of participation in a site visit. Information was supplied as needed to support receiving approval for a site visit. The goals were to establish what site visit information needed to be sent and to whom; establish a timeline for a decision by the site; and determine what, if any, limitations would be imposed by the site. The project abstract that discussed the overarching research questions and project goals was provided (see Attachment B). As appropriate and as requested, additional information was provided to the sites to maintain interest.
4. Discussions were held to work through various conditions required by the site to receive site visit approval. The ability to obtain key organizational information (e.g., strategic plans, implementation timelines/progress reports, system measures for return on investment, quality improvement measures, error tracking, internal surveys) was assessed. The ability to interact with the site's operations (e.g., conduct staff interviews, review computer systems, learn hardware/software specifications) also was assessed. Any special conditions/restrictions applicable to each site were noted. Evaluation of conditions may have led to a site being eliminated at various points in the screening process.
5. Once the decision to participate was confirmed, the original contact designated a site visit liaison and the Project Director worked with her/him to verify the visit dates and finalize details such as specific meetings, meeting locations, contact information, site visit locations, timing, limitations, etc. In addition, further detailed information will be collected prior to the site visit about the overall health

system and contact names/titles for each of the different types of care settings on the schedule.

## **SELECTED SITES**

### ***Erickson Continuous Care Retirement Communities***

*(Site Visit Dates: July 12-14, 2006)*

Erickson Retirement Communities, Catonsville, Maryland, owns and operates 13 Continuing Care Retirement Communities (CCRCs) in the United States. Four of their communities are considered "mature campuses" and include a medical center, a certified home health agency, inpatient and outpatient rehabilitation services, a skilled nursing facility, and an assisted living facility (personal communication with Daniel Wilt, March 23, 2006). Erickson does have some specialists on campus who are employed by Erickson and some that are not (e.g., podiatry, dentistry), however, they do not own or operate most specialty clinics and do not own or operate any acute care centers. Erickson has developed a chart summary, which is generated out of their electronic medical record and can be accessed via the web or at any of their facilities' workstations. The chart summary includes relevant current and historical information such as advanced directives, medication lists, laboratory results, problem lists, contact information for patient and caregivers, etc. Care coordination is facilitated as physicians can access this information on or off-campus and then can coordinate in a timely manner with the emergency department physician if a patient requires acute care. In November 2005, Erickson launched a website (<https://myhealth.erickson.com>), which is provided to their residents free of charge. Patients have read-only access to their own medical record including the chart summary discussed above and can download it to a USB memory stick (provided by Erickson free of charge) and take it with them (should they travel or be away for extended periods of time). Alternatively, patients can access this information via the web.

**Unaffiliated PAC/LTC sites:** St. Agnes hospital, St. Agnes hospice, Johns Hopkins Home Health Agency.

### ***Montefiore***

*(Site Visit Dates: August 2-4, 2006)*

Montefiore is an integrated delivery system in Bronx, New York, providing a full range of services, including specialty care to both local and outside populations. It serves a medically underserved population, a large number of whom are young, minority, and poor (Greg Burke presentation slides from November 2004). Montefiore owns a large home health agency and contracts with a number of skilled nursing facilities in the area. They are using information technology to support the use of clinical pathways and retrospective assessments of practice and outcomes to improve quality of care (Source: Greg Burke presentation slides from November 2004). Montefiore is one of several acute care hospitals involved in the creation of the non-

profit entity called the Bronx Regional Health Information Organization (RHIO). The other collaborators include additional acute care hospitals, over 40 community-based primary care centers, two nursing homes, two home health agencies, payors, physician offices, and laboratories. They recently were awarded \$4.1 million from the New York Department of Health (NYDoH) for seed money (called HEAL-NY) to start up a data exchange RHIO in the Bronx. The focus of the Bronx RHIO is to facilitate sharing of clinical data among providers with disparate systems and levels of sophistication in using EHR systems (personal communication with Greg Burke).

**Unaffiliated PAC/LTC sites:** Schervier Nursing Care Center, the VNS of New York, the Jewish Home and Hospital.

### ***Intermountain Healthcare***

*(Site Visit Dates: August 9-11, 2006)*

Intermountain Healthcare is a non-profit health care system that provides care to residents of Utah and Idaho. This institution is one of the pioneers in health information technology, with a long history of excellence in the area of quality improvement. Stanley Huff and others at Intermountain were among the first users and developers of electronic health record systems. Intermountain Healthcare is a member of the Utah Health Information Network (UHIN), a community health information network that began in 1993. UHIN is a coalition of health care providers, payors, and state government with the common goal of reducing costs by standardizing administrative data, particularly payment data. The network community sets the data standards that providers and payors voluntarily agree to adhere. The UHIN standards are then incorporated into the Utah state rule via the Insurance Commissioners Office and are required for provider payment.

UHIN operates as a centralized secure network through which the majority of health care transactions pass in the state. Nearly all payors and providers are participating in this project. UHIN developed a tool (UHINT), which they provide free of charge to providers for use in electronically submitting claims. The tool is provided so that even the smallest provider can submit claims and electronically receive remittance advices. This has drastically reduced the amount of paper processing required for payors and has streamlined the payment of claims and remits, which has resulted in providers receiving payment more quickly. Under an AHRQ grant, they will use what they have learned standardizing the administrative data and pilot test the exchange of a limited set of clinical data (medication history, discharge summaries, history and physical, and laboratory results) with a small number of providers. This pilot is scheduled to occur in the summer of 2006.

**Unaffiliated PAC/LTC sites:** Christus St. Joseph Villa (not confirmed as of June 23), Community Nursing Service, Mission Health Services, CareSource (not confirmed as of June 23).

**Indiana Health Information Exchange**  
(Site Visit Dates: September 13-15, 2006)

The Indiana Health Information Exchange (IHIE) is a non-profit venture connecting a number of health delivery systems in Indiana and led by Dr. Marc Overhage. The IHIE comprises over 48 hospitals and has approximately 3,000 physicians who access the network. With AHRQ funding and a variety of other sponsors including BioCrossroads, regional and local hospitals, and the Regenstrief Institute, the IHIE recently implemented a community-wide clinical messaging project. Each participating partner has access to patients' clinical results using a single IHIE-controlled electronic mailbox.

In November 2005, the HHS announced the award of contracts totaling \$18.6 million to four consortia to develop a prototype for a Nationwide Health Information Network (NHIN) architecture. IHIE, MA-SHARE (Massachusetts), and Mendocino HRE (California) are involved in the Connecting for Health consortium that will launch a prototype of an electronic national health information exchange based on common, open standards. Components of these prototypes that are particularly interesting for this project are: (1) the prototypes will be designed to facilitate HIE using the Internet, not creating a new network; (2) they will allow for communication to occur between many different types of EHR systems; and (3) they will allow for different types of software and hardware that can be included in the system.

**Unaffiliated PAC/LTC sites:** Beverly Healthcare at Brookview, the VNS of Central Indiana, TLC Management (not confirmed as of June 23).

# **CHAPTER 3: CONDUCTING THE SITE VISITS**

## **INTRODUCTION**

This chapter provides more detail on how it is envisioned the site visits will be conducted. To minimize burden on any host site, HCPR staff will be as flexible as possible in terms of setting up interviews with key individuals at each site. In some cases, those individuals with whom a member of the HCPR team should speak may be unavailable during the visit. In these cases, phone calls (either before or after the site visit) will be set up to attempt to collect the salient information over the telephone.

Overall case study objectives, the site visit participants, the protocols for conducting the visits, and a description of the logistics for setting up the visits are included below. See Attachment A for a copy of the scenarios and proposed questions that will be or already have been distributed prior to the site visit.

## **CASE STUDY/SITE VISIT OBJECTIVES**

Three overarching topic areas inform the manner in which the site visits will be conducted:

1. Pertinent clinical data that are and are not exchanged at times of transfer from acute care hospitals to post-acute or long-term care. For example, how does the acute care hospital determine key elements of a SNF resident's history upon admission? What information is deemed important? How is this information recorded and transmitted? How are data shared with outside pharmacies? How are medication lists reconciled? How are patient-specific idiosyncrasies communicated to others at different health settings?
2. Organizational, cultural, technological, and policy levers or barriers that exist (or do not exist) that allow (or hinder) information exchange with other health care settings. For example, what are/were the barriers to implementing and maintaining the electronic health information system? How did the health delivery system overcome these barriers? What types of resistance from staff, if any, was encountered? What is preventing more information from being shared across settings (electronically or otherwise)? What changes in the health delivery system occurred as a result of implementing the EHR system? How did the health institution cover the financial costs of EHR system implementation? Is there a solid business case for PAC/LTC settings to adopt an EHR system? What is the role of the patient and family in the preparation of the care plan?
3. Mechanisms that are used to exchange data across settings. For example, are there settings where true electronic interoperability exists? What are the

technological barriers to achieving interoperability? Are settings using standards-based EHR systems?

## SITE VISIT TEAM COMPOSITION

Site visits are anticipated to require three days on site, and one day following each site visit to summarize in writing the site visit findings. The site visit team will include Dr. Eric Coleman and Rachael Bennett from the University of Colorado, both with clinical expertise, particularly in acute hospitals, PAC, and LTC services. The Contractor has subcontracted with Mark Tuttle, from Apelon, Inc., to be the HIT expert of the site visit team. Dr. Coleman, Ms. Bennett, and Mr. Tuttle will conduct all four site visits. Jennie Harvell, the ASPE Task Order Manager, has indicated she will attend two site visits, Montefiore and Erickson CCRC.

## RESPONDENTS AT EACH HEALTH SETTING

A list of key "types" of individuals that should be interviewed and/or observed during the course of the site visit has been identified. Table A.2 provides illustrative examples of the variety of people with whom the HCPR team may wish to speak, but should not be considered a comprehensive list. Each health setting will have its own unique set of personnel and each setting at each site visit will have a schedule tailored to their unique circumstances.

<b>Management</b>	<b>Information Technology</b>	<b>Clinicians</b>	<b>Other</b>
Director of Nursing/ Administrator of Facility	Chief Information Officer	Physician(s)	Data entry staff (if appropriate)
Medical Director	Information System Administrator	Supervising RN	Medical records (paper)
Business Office	Staff that implemented the EHR system	Therapist(s) (if appropriate for setting)	
Compliance Officer/ Regulatory Staff	Staff that provide technical assistance to the EHR system users	Nursing staff (RN, LPN, as appropriate)	
		Pharmacist (if appropriate for setting)	
		Other clinical staff (nursing aide, if appropriate for setting)	

## OBSERVATION AND INTERVIEW PROTOCOLS

The site visit protocols will be conducted using multiple types of data collection including interview, observation, and various sample clinical scenarios. In addition,

general information about the health system will be collected from the administrator and/or system administrator prior to the site visit.

Participating sites are fairly complex health systems. With regard to visits to Intermountain HealthCare, Montefiore, and Indiana Health Information Exchange, the schedule is to visit an acute care hospital and one affiliated skilled nursing facility or home health agency the first day. The second and third days will be spent visiting unaffiliated SNFs/NHs and/or HHAs. At Erickson, the first day will be spent at the Charlestown Campus (in Catonsville, Maryland) where the HCPR team will visit the medical center, as well as the on-campus SNF and HHA. The second day will be spent visiting the local acute care hospital, St. Agnes, which provides acute care services to Erickson residents, as well as the St. Agnes hospice. On the third day, the HCPR team will visit Johns Hopkins HHA, as they receive some referrals from Erickson.

At each care setting, three types of staff will be interviewed: clinicians, information technology, and business office/managers. In some cases, we will have large group discussions and in other cases, we will break off and have the expertise of each HCPR site visit team member speak with someone one-on-one.

## **SITE VISIT SET UP**

At the time of the writing of this report, all four site visits have been confirmed. There were a number of challenges faced when the prioritized sites were contacted. The first challenge was getting the health delivery system to commit to a site visit. One of the preferred sites initially agreed to a site visit and then tacitly refused by neglecting to respond to any further correspondence. Of the four sites ultimately selected, two of the four required an amount of persuasion before agreement.

A second challenge was identifying a date when key individuals would be available in both the health delivery system and the unaffiliated PAC/LTC providers. The schedules of these key individuals are not within the control of the Contractor and every effort was made to identify a time that maximized participation.

A third and related challenge is the time of year in which the site visits are scheduled, which is July-September 2006, a time when many health delivery system and PAC/LTC staff are on vacation.

A fourth challenge was non-responsiveness on the part of the site liaison. Although the initial assignment of a liaison at each health delivery system went smoothly, follow-up communication with each HDS liaison has proved to be problematic. Furthermore, a liaison not only is needed at each health delivery system, but also at each of the PAC/LTC settings visited (three per site visit). Because the PAC/LTC settings are not affiliated with the health delivery system, the staff at some of the unaffiliated PAC/LTC settings has been less responsive to our request for a site visit

than we had hoped. We interpret their reluctance to respond as likely the result of not fully understanding the short time commitment we were asking of their institution.

### ***HCPR Site Visit Coordinator***

The Project Director will be responsible for facilitating and preparing for each site visit (e.g., working with the host liaison to schedule interviews prior to our arrival, setting the schedule, knowing how to maneuver around the city to get to the next appointment, keeping us on schedule, and collecting the appropriate information at each setting). Once the site visit schedule has been approved and dates have been scheduled, the Project Director will continue with the following preparations:

1. Work with the HDS site liaison in setting up all meetings with those we would like to interview and/or observe. This includes identifying names and contact information of the people attached to each "type" of respondent that we would like to interview/observe and determining the physical location of each person. To the extent feasible, interviews will be set up prior to the arrival of the HCPR team. If possible, biographies of those we will interview will be made available to the HCPR team prior to the visit.
2. Identify, contact, and schedule the site visits with three unaffiliated skilled nursing facilities, nursing homes, and/or home health agencies that receive a number of referrals from the health delivery system.
3. Work with the site liaison in setting up meeting rooms for the entrance and exit briefings, as well as for interviews.
4. Identify any potential scheduling conflicts (e.g., scheduled vacations) with the help of the site liaison that may preclude any of these individuals from being able to participate in an interview. Determine, with the liaison, appropriate designees, or replacements.
5. Provide background information on the site to HCPR team members who will be visiting the site.
6. Facilitate the entrance and exit briefings.
7. Collect documentation, reports, etc., from the site during the visit and include as part of the site visit report.
8. Consolidate the HCPR site visit team's individually prepared site visit reports into one document after the site visit.

### ***Distributing Information to the Site Prior to the Arrival of the HCPR Team***

HCPR will develop and disseminate a packet of materials to the appropriate individual (e.g., the administrator, Director of Nursing) prior to the site visit for confirmation and completion. The following are some potential items that may be included in the packet:

1. An introductory cover letter to the administrator.
2. A partially-completed discussion guide regarding the overall health system and each individual care setting that make up the health system. Examples of the types of data to be collected include size, ownership, volume of patients seen, and contact information of the administrator. Most of this information already has been collected in order to appropriately set up the visit, but there are some items that we are unable to ascertain by telephone. Ideally, this document will be reviewed, revised, and returned to us prior to the site visit.
3. A loosely constructed agenda for the site visit.
4. A project overview document outlining the goals and objectives of the project and the case studies in particular (see Attachment C for the two versions--one for the host health delivery system and one for the post-acute/long-term care sites).
5. A list (including biographic sketches) of the three individuals that comprise the HCPR site visit team.
6. The name of the site liaison with whom HCPR's site visit coordinator has been working.

### ***Designation of Site Liaison***

One person at each site will be designated as the site liaison and this person will be requested to take on the following responsibilities:

1. Assist the Project Director in scheduling interviews with appropriate individuals at the HDS as well as at each of the three unaffiliated PAC/LTC settings. This will include providing us with all necessary contact information for each of these individuals.
2. Provide documents that include background information on the health setting.
3. Reserve a meeting space for the entrance and exit briefings, and any other interviews, if necessary.
4. Attend and help facilitate the entrance and exit briefings.

## ***Travel Arrangements***

Once the site is selected, dates will be confirmed with HCPR and site participants. A HCPR staff member will set up the travel and lodging arrangements for the travelers, including a rental car, as appropriate for off-site travel.

## ***Duration of Site Visits***

The goal will be to conduct the site visits as expeditiously as possible to minimize the burden on the host sites. We estimate that each site visit can be completed in two and a half to three days. Appointments at each health care setting will be set up prior to our arrival and will require each site visitor to conduct up to four interviews each day, along with observing various staff conduct their routine tasks.

The following assumptions were made regarding the schedule and duration of a site visit:

1. With the exception of Erickson CCRC, day one will be spent with the acute care health delivery system and one affiliated PAC/LTC setting. On days two and three, no more than three unaffiliated PAC/LTC settings will be visited. The Erickson site visit will be different, as the campus has a medical center, a SNF, and an HHA. The "unaffiliated" settings will be an acute care hospital, one unaffiliated hospice, and one unaffiliated home health agency.
2. Each member of the HCPR team may want to speak with a number of people at each care setting. In some cases, there may be two or three HCPR personnel involved in an interview with one or more contacts at the health setting.
3. The entrance and exit briefings should last no more than 45 minutes. The liaison will determine who should attend these briefings.
4. If there are key individuals with whom the HCPR team is unable to contact while on site, information will be gathered from these individuals after the completion of the site visits.

## ***Summary of Findings***

Each of the HCPR site visitors is responsible for writing a site visit report, following a standard format (to be created). They also are responsible for participating in a phone call with the TOM within one week of the site visit to discuss key findings. The Project Director is responsible for preparing a one-page report to be used in conjunction with this debriefing phone call.

To ensure the accuracy of the report, we will ask a designated person at each visited health setting if s/he would be willing to review the site visit report summary for accuracy. Findings from the site visits will be included in the draft final report, due mid-November 2006.

## **REFERENCES**

Kaushal, R., Blumenthal, D., Poon, E.G., Jah, A.K., Franz, C., Middleton, B., Glaser, J., Kuperman, G., Christino, M., Fernandopulle, R., Newhouse, J.P., Bates, D.W. (2005). The costs of a national health information network. *Annals of Internal Medicine*, 143(3):165-73.

# ATTACHMENT A. DRAFT DATA COLLECTION AND DISCUSSION GUIDES, CLINICAL SCENARIOS

This first table would be converted into a data collection form we would send to all sites (acute care hospital and PAC/LTC settings) prior to the visit.

General Information about Health Care Setting
Area served (urban, rural, both)
Year established
Ownership (gov't, for-profit, nonprofit)
Number of full-time employees
Number of nursing homes--owned
Number of nursing homes--affiliated
Number of home health agencies--owned
Number of home health agencies--affiliated
Physician practices--owned
Physician practices--affiliated
Do you have an inpatient pharmacy (yes/no)
Does SNF use a dedicated pharmacy or does it contract with large/retail pharmacies or multiple pharmacies?
Number of Pharmacies--outpatient
Do you have an in-house laboratory?
How many outside laboratories are used?
Do you have an in-house radiology department?
How many outside radiology centers/MR centers do you work with?
Number of affiliated physician practices
Main software vendor
Are your physicians affiliated with your HDS or are they independent?
Clinical EHR system <i>differentiate from appointment or billing</i> (yes/no)
Short-term (6 months?) HIE future plans
Long-term HIE future plans

The following tables represent potential questions in various areas that we anticipate we will ask. Once we receive approval from the TOM, we will convert these questions into data collection guides.

<b>Health information exchange:</b>				
	<b>Electronic Exchg</b>	<b>Manually (fax [F], hardcopy [HC], or phone [P])</b>	<b>Standard s-based? (yes/no)</b>	<b>What is exchanged, comments</b>
HDS and pharmacy <i>inpatient or community?</i>				
HDS and laboratory <i>inpatient or community?</i>				
HDS and radiology <i>inpatient or community?</i>				
HDS and physician practice				
HDS and SNF 1				
HDS and SNF 2				
HDS and HHA 1				
HDS and HHA 2				
Other HDS (hospitals, clinics)				
HDS and unaffiliated HHAs/SNFs				
Other:				
SNF and pharmacy (dedicated or contracted)				
SNF and laboratory (dedicated or contracted)				
SNF and radiology (dedicated or contracted)				
SNF and physician practice				
SNF and HDS(s)				
SNF and ED				
Other PAC/LTC settings				
Other:				
HHA and pharmacy (dedicated or contracted)				
HHA and laboratory (dedicated or contracted)				
HHA and radiology (dedicated or contracted)				
HHA and physician practice				
HHA and HDS(s)				
HHA and ED				
Other PAC/LTC settings				
Other:				

<b>Acute Care Hospitals &amp; Medical Centers/Clinics</b>
What information is necessary to exchange at time of transfer from acute care hospitals to PAC/LTC? focus on physician referrals, consultation reports, meds, lab work
Caregivers & coordination of care (including family)
What information actually is exchanged? focus on physician referrals, consultation reports, meds, lab work
Caregivers & coordination of care (including family)
What medium (phone, fax, paper, electronic, a combination of all) is used to exchange information?
Who has access to and uses the information?
How is this information accessed?
Do all clinicians (physician, nurse, social worker, therapist, and nutritionist) have the same access to the information? <i>Probe: between disciplines vs. within disciplines.</i>
How is information communicated to the different clinicians (physicians, nurse, social workers, therapists, nutritionists, etc.)? <i>Probe: between disciplines vs. within disciplines.</i>
Do unaffiliated providers (e.g., PAC providers) have the same access to health information as affiliated providers? If not, how does access differ between affiliated and unaffiliated providers?
When is health information exchanged to PAC/LTC facilities? Is there a delay and if so, how long?
Is time-sensitive information exchanged in a timely manner with PAC/LTC? ( <i>Define what we mean by time-sensitive, then ask if this information is transmitted specially or separately, then what percentage of the time is the info transferred in a timely manner (e.g., by the time the patient arrives at your health setting)</i> )
Has this changed with the use of electronic health information exchange (e-HIE)?
What information is not being communicated/exchanged at time of transfer from acute care hospitals to PAC/LTC?
What are the plans for the future in terms of HIE including when/how/where HIE will become automated/become more automated?
What are the workflow/communication issues (positive and negative) with having (1) automated or (2) non-automated HIE?
What are the facilitators/barriers to (1) automated and (2) non-automated HIE?
Who were/are the advocates/champions for embracing e-HIE in your HDS (if applicable)? What did these champions have in common across all the sites? Did you use push or pull strategies (or both)?
How did the champions get others to embrace the concept that HIE was valuable? What points were most compelling?
Does your EHR system use CHI-endorsed content and messaging standards, and do these standards support electronic HIE? If so, which standards are used and how do these support HIE?
Who is responsible for ensuring data are up to date upon the patient's arrival?
Who reconciles the information from the previous health care setting with the current care setting? (e.g., medications)? How long does this take on average?
What policies would promote information exchange (including electronic information exchange)?
Are the policies HDS? State? Federal? Accreditation?

<b>Skilled Nursing Facilities--Home Health Agencies</b>
Define the clinically relevant information at times of transition into and out the facility/agency?
How is information exchanged with (i.e., to and from) the hospital (acute care)? <i>Probe: What % of the time does this happen?</i>
How is information exchanged with (i.e., to and from) physicians (both in and outside of your health care setting)?
How is information exchanged with (i.e., to and from) pharmacies (inside and outside)?
How is information exchanged with (i.e. to and from) laboratories (inside and outside)?
How is information exchanged with (i.e., to and from) other PAC/LTC providers?
What data are exchanged with acute care?
What data <u>are not</u> exchanged with acute care?
What data are exchanged with physicians?
What data <u>are not</u> exchanged with physicians?
What data are exchanged with pharmacies?
What data <u>are not</u> exchanged with pharmacies?
What data are exchanged with laboratories?
What data <u>are not</u> exchanged with laboratories?
What data are exchanged with other PAC/LTC?
What data <u>are not</u> exchanged with other PAC/LTC?
Is the flow of info different if you are working with a provider that is not affiliated? How is it different?
Have you invested in an EHR system/applications?
If so, what functionalities are supported by the EHR system/applications?
To what extent and how are these applications adhering to CHI-endorsed standards for content and format?
Does the EHR-S support HIE? If so, w/ whom and how?
If you haven't already done so, what are your future plans in terms of adopting an EHR system? What criteria are you using to select one?
Are standards considered when implementing EHR systems or choosing vendors? If so which standards?
What kind of staff turnover do you experience? How difficult is it to get new staff trained on the EHR system (if applicable)? What other issues does staff turnover greatly affect?
How technologically savvy are the NHs/HHAs we visited? ( <i>opinion of site visit team member</i> )
What policies would promote information exchange (including electronic information exchange)? <i>Probe for things such as the greatest technological challenges (financial, integration of services, network security, electronic signature/ensuring person is who s/he says she is, others)</i>
What are the facilitators/barriers to (1) automated and (2) non-automated HIE?

<b>Technological--Electronic exchange of information</b>
Interoperable internal information exchange
Interoperable information exchange with external parties
What can be exchanged
CHI-endorsed
Messaging standards
What EHR system, vendor, etc.
What hardware
What software
e-prescribing capabilities
Description of each EHR system
Architecture of EHR systems at PAC/LTC (if applicable)
How are the data stored? Shared? Accessed? Transmitted? Accepted at other setting? Entered? Etc.
How are you addressing any interoperability issues using standards-based EHR systems? Also includes (1) within each HDS, and (2) in terms of the broader context, including how HIE happens with unaffiliated providers (including e-HIE).
How does electronic health information exchange (E-HIE) vary between affiliated and unaffiliated providers within a single HDS?
How does e-HIE vary when exchanging to outside entities? To what extent could the e-HIE mechanisms being used with each HDS easily support e-HIE across HDS? If so how? If not, why not?
What are the facilitators/barriers to (1) automated and (2) non-automated HIE <i>Probe for things such as the greatest technological challenges (financial, integration of services, network security, electronic signature/ensuring person is who s/he says she is, others)</i>
Short-term plans (0-6 months)
Long-term plans

<b>Organizational Issues/Business/Managerial</b>
Have you articulated a business case for electronic HIE in PAC/LTC?
How was this business case developed? <i>Probe: We are after clinical data that needs to be exchanged as well as billing data or MDS</i>
When EHR system was implemented, was the adoption of a product that had CHI-endorsed standards a high, medium or low priority?
How did you choose your vendor(s) and which vendor did you choose?
When considering an EHR system, was interoperability with other systems a high, medium, or low priority? Please explain.
Approximately, what percentage of your overall annual budget is allocated to health information technology (HIT)?
Are any of your staff involved in SDOs? If yes, which ones?
How has staff turnover affected the training on the use of the EHR system?
Number of specific/dedicated information technology staff
Are any portions of the HIT outsourced? If so, what?
Is this part of a large chain or is it a freestanding health care setting?
Are they using CHI-endorsed and other HIT content and messaging standards? If so, which ones are they using? Messaging? Vocabulary? Direct care FM?
Is the organizational culture open to the idea of exchanging information to "outside entities" or is it more of a closed system?
What are the facilitators/barriers to (1) automated and (2) non-automated HIE? <i>Probe for things such as the greatest technological challenges (financial, integration of services, network security, electronic signature/ensuring person is who s/he says she is, others)</i>
Short-term plans (0-6 months)
Long-term plans <i>Probe for top three information technology priorities. Examples might be creating a data warehouse, developing better network security, joining/expanding a RHIO or other data exchange group, reducing medical errors/increasing patient safety, upgrading existing clinical systems, implementing/choosing/vetting and EHR system, adopting technology-driven devices such as handheld PDAs for data collection or "smart pens" or whatever.</i>

## DRAFT CLINICAL SCENARIO

*Script: We believe that illustrative cases are one of the more effective and efficient ways of learning more about how you exchange information with health care clinicians in other settings.*

For the purpose of this exercise, we have selected an 82-year-old woman. The key elements of her history include that she:

- Lives alone in the community.
- Has a primary care physician.
- Relies on a 60-year-old daughter who lives about six miles away and who continues to work full-time for transportation to appointments and assistance with obtaining and taking her medications.
- Has hypertension controlled with lisinopril, diabetes controlled with glipizide, and mild cognitive impairment. Her only other medication is an 81mg aspirin.
- Wears reading glasses and a single hearing aid in her left ear.
- Has completed advance directives that include signed orders "do not resuscitate" in the event of cardiac arrest.

*Now, let's say this patient suffers a fall while bathing and is taken to the acute care hospital where her hip fracture is diagnosed and repaired without complications. Please help us understand how health information exchange either does or does not occur in response to each of the following questions.*

*We will begin by focusing on the acute care hospital:*

1. Please describe how the acute care hospital determines the above key elements of her history.
  - a. Is it obtained electronically? If so, from what source? What is the time frame?
  - b. Is it obtained non-electronically? If so, from what source? What is the time frame?
  - c. Is it obtained directly from the patient/family member through an intake process?
2. Where is information regarding the role of the patient's family caregiver recorded?
3. Who is responsible for medication reconciliation upon admission and again on transfer from your facility?
4. On admission, her lisinopril is stopped in preparation for her surgery. Who is responsible for re-starting this medication after surgery or communicating this change to the next [post-hospital] care team prior to her discharge/transfer?
5. On admission, the patient shares with the intake nurse that she has an intense fear of needles and that she strongly prefers that staff use a butterfly needle rather than a straight needle. Who is responsible for recording this information and where would it be recorded? How might this information be shared with the next care team?
6. On post-operative day #1, she is given diphenhydramine [Benadryl] for sleep and develops acute altered mental status. Where would this new information be recorded? How might this information be shared with the next care team?
7. Which member of the care team oversees the administration of anticoagulation? Which member of the care team is responsible for communicating this information to the next care team [SNF or home health agency or primary care physician]?
8. On post-operative day #1, she begins physical therapy but her session is aborted due to poor control of her pain. On post-operative day #2, working with her therapist, it is determined that pre-treating her with vicodin 20 minutes prior to therapy was effective in controlling her pain. Who is responsible for recording this information and where would it be recorded? How might this information be

shared with the next care team? Is there an opportunity for communication between the hospital physical therapist and the skilled nursing facility therapist?

9. Who is responsible to determining the circumstances surrounding the patient's fall? Who is in a position to intervene so that this patient does not return home only to suffer another fall and fracture?
10. Who is responsible for ensuring that this patient who most likely suffers from osteoporosis is started on protective therapy including calcium, vitamin D and possibly Fosamax or Actonel?
11. Is there a mechanism in place for how to communicate the following information to the next care team?
  - a. Last bowel movement.
  - b. Skin integrity/prevalence of pressure ulcers.
12. On post-operative day #2, she is transferred to a skilled nursing facility. After she leaves, her serum potassium lab result comes back low at 3.0. How might this information be shared with the next care team?

*Next, we will focus on the transfer from the acute care hospital to the skilled nursing facility*

1. Please describe how the SNF determines the key elements of her history.
  - a. Is it obtained electronically? If so from what source? What is the time frame?
  - b. Is it obtained non-electronically? If so from what source? What is the time frame?
  - c. Is it obtained directly from the patient/family member through an intake process?
2. A few more specific questions:
  - a. How would you become aware that this patient requires glasses to read and the support of hearing aid?
  - b. How would you become aware that this patient has mild cognitive impairment? Where would this information be recorded? If this information is determined from the MDS, how would this information be reflected in the standard medical record?
3. Where is information regarding the role of the patient's family caregiver recorded?

4. Who is responsible for medication reconciliation upon admission and again on transfer from your facility? How is the indication for the medication determined? Do you explicitly identify:
  - a. New medications?
  - b. Medications to be stopped?
  - c. Medications to be continued at the same dose?
  - d. Medications to be continued but at a different dose?
5. How would the knowledge that this patient has an intense fear of needles and that she strongly prefers that staff use a butterfly needle rather than a straight needle be transmitted from the hospital [where she revealed this] to the skilled nursing facility? Who is responsible for recording this information and where would it be recorded? How might this information be shared with the next care team?
6. How would the knowledge that this patient had an adverse reaction to diphenhydramine [Benadryl] be recorded? How might this information be shared with the next care team?
7. How do you determine what the patient is to receive with regards to anticoagulation? How do you communicate this information to the next care team [home health agency or primary care physician]?
8. Is there an opportunity for communication between the hospital physical therapist and the SNF physical therapist? Is there an opportunity for communication between the skilled nursing physical therapist and an outpatient [home health agency or outpatient clinic] therapist? If yes to either question, how does the communication take place? E-mail? Phone? Fax?
9. Who is responsible for recording information on pain status and where would it be recorded? How might this information be shared with the next care team?
10. Who is responsible to determining the circumstances surrounding the patient's fall? Who is in a position to intervene so that this patient does not return home only to suffer another fall and fracture?
11. Who is responsible for ensuring that this patient who most likely suffers from osteoporosis is started on protective therapy including calcium, vitamin D and possibly Fosamax or Actonel?
12. Is there a mechanism in place for how to communicate the results of an abnormal lab value that was drawn in the hospital but was not reported until after the patient was transferred to the SNF?

*Next, we will focus on the transfer from the skilled nursing facility to emergency department [ED] located in the same acute care hospital from which she was recently*

*released. Let's say that the patient develops a swollen leg and becomes short of breath. The concern is that she may have suffered a deep venous thrombosis and possibly a pulmonary embolus despite being on an anticoagulant.*

1. How are the recent acute developments conveyed to the nurse and physician in the emergency department?
2. Please describe how the ED determines the key elements of her history.
  - a. Is it obtained electronically? If so, from what source? What is the time frame?
  - b. Is it obtained non-electronically? If so, from what source? What is the time frame?
  - c. Is it obtained directly from the patient/family member through an intake process?
  - d. Is it obtained from records from the patient's prior hospital stay?
3. Where is information regarding the role of the patient's family caregiver recorded?
4. How would the knowledge that this patient has an intense fear of needles and that she strongly prefers that staff use a butterfly needle rather than a straight needle be transmitted from the SNF to the ED? Who is responsible for recording this information and where would it be recorded? How might this information be shared with the next care team?
5. How would the knowledge that this patient had an adverse reaction to diphenhydramine [Benadryl] be recorded? How might this information be shared with the next care team?
6. *<Maybe add more here or just focus on the immediate care problem. We could also explore what the transfer back to SNF might look like with her new regimen designed to treat her pulmonary embolism>*

*Next, we will focus on the transfer from SNF to the home health agency*

1. Please describe how the home health agency determines the key elements of her history.
  - a. Is it obtained electronically? If so, from what source? What is the time frame?
  - b. Is it obtained non-electronically? If so, from what source? What is the time frame?
  - c. Is it obtained directly from the patient/family member through an intake process?

2. A few more specific questions:
  - a. How would you become aware that this patient requires glasses to read and the support of hearing aid?
  - b. How would you become aware that this patient has mild cognitive impairment? Where would this information be recorded?
3. Where is information regarding the role of the patient's family caregiver recorded?
4. Who is responsible for medication reconciliation upon admission and again on transfer from your facility? How is the indication for the medication determined? Do you explicitly identify:
  - a. New medications?
  - b. Medications to be stopped?
  - c. Medications to be continued at the same dose?
  - d. Medications to be continued but at a different dose?
5. How would the knowledge that this patient has an intense fear of needles and that she strongly prefers that staff use a butterfly needle rather than a straight needle be transmitted from the SNF to the home health agency? Who is responsible for recording this information and where would it be recorded? How might this information be shared with the next care team?
6. How would the knowledge that this patient had an adverse reaction to diphenhydramine [Benadryl] be recorded? How might this information be shared with the next care team?
7. How do you determine what the patient is to receive with regards to anticoagulation? How do you communicate this information to the next care team [primary care physician]?
8. Is there an opportunity for communication between the skilled nursing physical therapist and an outpatient [home health agency or outpatient clinic] therapist?
9. Who is responsible for recording information on pain status and where would it be recorded? How might this information be shared with the next care team?
10. Who is responsible to determining the circumstances surrounding the patient's fall? Who is in a position to intervene so that this patient does not return home only to suffer another fall and fracture?
11. Who is responsible for ensuring that this patient who most likely suffers from osteoporosis is started on protective therapy including calcium, vitamin D and possibly Fosamax or Actonel?

12. Is there a mechanism in place for how to communicate the results of an abnormal lab value that was drawn in the skilled nursing but was not reported until after the patient was transferred to home?

## **ATTACHMENT B. PROJECT ABSTRACT/OVERVIEW**

Awareness and support for the need of interoperable, standardized electronic health records (EHRs) have greatly increased. To date, these efforts have largely focused on hospitals and ambulatory settings. Post-acute care (PAC) and long-term care (LTC) settings have unique needs for health information exchange (HIE). This project will examine how HIE is occurring between health delivery systems and unaffiliated PAC/LTC settings and the factors that promote or hinder this exchange. These research questions will be addressed:

1. What HIT is being used to support the creation, storage, and exchange of: summaries of physician office visits and hospital stays, CPOE, and laboratory results reporting?
2. What type of health information is needed for summary documents of hospital stays, physician office visits, medication orders, and laboratory tests?
3. What clinical information is exchanged as part of the summaries of physician office visits and hospital stays, physician orders, and results reports?
4. What health information is exchanged between health care providers and unaffiliated PAC/LTC settings and what are the mechanisms used to exchange information?
5. What factors do PAC/LTC providers and representatives from the selected health care delivery systems identify as supporting or creating barriers to the timely exchange of physician and hospital summaries, physician orders, and results reporting?

Project activities will include a literature search and discussions with stakeholders involved in the development of EHR architecture and standards. Based on the information learned, a plan will be developed for conducting site visits, modifying previously developed tools to gather information. In the Summer of 2006, four site visits will be conducted. Progress presentations to the Office of the Assistant Secretary for Planning and Evaluation will be made in months 7 and 15 of the project. The information gathered through all the sources will be summarized and presented in the final report, which will identify policies that could promote information exchange and propose next steps on to how to support information exchange with PAC/LTC settings.

# **ATTACHMENT C. SITE VISIT OBJECTIVES AND EXPECTATIONS**

## **AT HOST HEALTH DELIVERY SYSTEM**

We are pleased that your organization has agreed to participate in our study of health information exchange (HIE) in post-acute and long-term care. This project is examining how HIE is occurring between health delivery systems and unaffiliated post-acute and/or long-term care settings and the factors that promote or hinder this exchange. A better understanding will allow us to make informed recommendations to the Department of Health and Human Services about what needs to be done to facilitate more exchange with these often overlooked health care settings.

This document provides you with the objectives we would like to accomplish during the site visits as well as our expectations of you as a host sites. Our research team at the University of Colorado at Denver and Health Sciences Center (UCDHSC) is excited to visit your health setting; we will make every effort to minimize the burden placed on your staff and be as unobtrusive as possible. We also hope that members of your organization find the visit rewarding and stimulating.

Although our site visit will be three days, we plan to conduct the visit at your organization in one day. During the course of the site visit we plan to visit an acute care hospital and an affiliated home health agency (HHA) or skilled nursing facility (SNF) and three unaffiliated HHAs or SNFs.

Following is a summary of your organization's responsibilities as a participant in this research study:

1. **Identification of an individual who can act as a host site liaison.** Once a site visit has been scheduled, we would like to work with one individual from your organization to set up the visit (we are calling this person a site liaison). This person will provide background information on the health setting, including what post-acute and long-term care settings are included in the overall health system. S/he will work with Ms. Rachael Bennett in setting up interviews with key personnel prior to the site visit and arranging meeting rooms for the interviews.
2. **Completion of data collection form on your health system.** Ms. Bennett or Ms. Karis May will contact the host site liaison to gather preliminary data and prepare for the site visit. We plan on sending you a form at least one week prior to the site visit for you to complete. The completed form can be given to Ms. Bennett during the site visit, or e-mailed/faxed back to us prior to the visit.
3. **Participation in interviews.** Once we have identified the key personnel to be interviewed, the site visit liaison will ensure that they are available to participate

in an interview during the time frame we have established. We may request to interview key people by phone if they are unavailable while we are on site.

4. **Allow site visitors to observe your health setting's employees conduct their routine tasks.** We will attempt to be as unobtrusive as possible while we observe how the health setting staff interacts with and uses the electronic health record system and other mediums of exchanging health information.
5. **Review of site visit summary report.** Once our team members have completed their site visit reports, they will be synthesized into one report. We will distribute this report to the appropriate contact at your site for an accuracy check and the augmentation of any areas in which we need more information.
6. **Communication of any difficulties or issues to any member of the site visit team.** We expect that any issues or problems related to the site visit will be brought to the attention of the UCDHSC team.

All information gathered at each health care setting through this research will be held in the strictest confidence. No patient-level information will be collected or accessed. Only provider-level information will be provided in any study publications.

## **AT HOST POST-ACUTE/LONG-TERM CARE SETTING**

We are pleased that your organization has agreed to participate in our study of health information exchange (HIE) in post-acute and long-term care. This project is examining how HIE is occurring between health delivery systems and unaffiliated post-acute and/or long-term care settings and the factors that promote or hinder this exchange. A better understanding will allow us to make informed recommendations to the Department of Health and Human Services about what needs to be done to facilitate more exchange with these often overlooked health care settings.

This document provides you with the objectives we would like to accomplish during the site visits as well as our expectations of you as a host sites. Our research team at the University of Colorado at Denver and Health Sciences Center (UCDHSC) is excited to visit your health setting; we will make every effort to minimize the burden placed on your staff and be as unobtrusive as possible. We also hope that members of your organization find the visit rewarding and stimulating.

Although our site visit will be three days, we plan to conduct the visit at your organization in one-half day (no more than three or so hours). During the course of the site visit we plan to visit an acute care hospital and an affiliated home health agency (HHA) or skilled nursing facility (SNF) and three unaffiliated HHAs or SNFs.

Following is a summary of your organization's responsibilities as a participant in this research study:

1. **Identification of an individual who can act as a host site liaison.** Once a site visit has been scheduled, we would like to work with one individual from your organization to set up the visit (we are calling this person a site liaison). This person will provide background information on the health setting, including what post-acute and long-term care settings are included in the overall health system. S/he will work with Ms. Rachael Bennett in setting up interviews with key personnel prior to the site visit and arranging meeting rooms for the interviews.
2. **Completion of data collection form on your health system.** Ms. Bennett or Ms. Karis May will contact the host site liaison to gather preliminary data and prepare for the site visit. We plan on sending you a form at least one week prior to the site visit for you to complete. The completed form can be given to Ms. Bennett during the site visit, or e-mailed/faxed back to us prior to the visit.
3. **Participation in interviews.** Once we have identified the key personnel to be interviewed, the site visit liaison will ensure that they are available to participate in an interview during the time frame we have established. We may request to interview key people by phone if they are unavailable while we are on site.
4. **Allow site visitors to observe your health setting's employees conduct their routine tasks.** We will attempt to be as unobtrusive as possible while we observe how the health setting staff interacts with and uses the electronic health record system and other mediums of exchanging health information.
5. **Review of site visit summary report.** Once our team members have completed their site visit reports, they will be synthesized into one report. We will distribute this report to the appropriate contact at your site for an accuracy check and the augmentation of any areas in which we need more information.
6. **Communication of any difficulties or issues to any member of the site visit team.** We expect that any issues or problems related to the site visit will be brought to the attention of the UCDHSC team.

All information gathered at each health care setting through this research will be held in the strictest confidence. No patient-level information will be collected or accessed. Only provider-level information will be provided in any study publications.

# **HEALTH INFORMATION EXCHANGE IN POST-ACUTE AND LONG-TERM CARE CASE STUDY FINDINGS**

## Files Available for This Report

### Final Report

HTML: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase.htm>  
PDF: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase.pdf>

### Appendices

#### All Appendices

HTML: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-A.htm>

#### Appendix A: Draft Case Study Plan

HTML: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-A.htm#appendA>  
PDF: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-A.pdf>

#### Appendix B: Site Visit Report--Erickson Retirement Communities, Catonsville, Maryland

HTML: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-A.htm#appendB>  
PDF: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-B.pdf>

#### Appendix C: Site Visit Report--Montefiore Medical Center, Bronx, New York

HTML: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-A.htm#appendC>  
PDF: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-C.pdf>

#### Appendix D: Site Visit Report--Intermountain Health Care, Salt Lake City, Utah

HTML: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-A.htm#appendD>  
PDF: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-D.pdf>

#### Appendix E: Site Visit Report--Indiana Health Information Exchange, Indianapolis, Indiana

HTML: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-A.htm#appendE>  
PDF: <http://aspe.hhs.gov/daltcp/reports/2007/HIEcase-E.pdf>