APPENDIX D:

SITE VISIT REPORT-INTERMOUNTAIN HEALTH CARE SALT LAKE CITY, UTAH AUGUST 9-11, 2006

Health Settings visited: LDS Hospital (an Intermountain Health Care hospital), Christus St. Joseph's Villa, the Community Nursing Service (CNS), Hillside Rehabilitation Center, and CareSource Home Health and Hospice.

I. OVERVIEW OF THE LOCATION/CITY AND VISITED HEALTH SETTINGS

Intermountain Health Care is a not-for-profit health care enterprise that has over 60% of the acute care hospital market in Salt Lake City. Intermountain Health Care has more than 27,000 employees enterprise-wide, with approximately 4,700 at LDS Hospital, the hospital visited by the site visit team. Intermountain employs 550 physicians and has another 3,000 affiliated physicians with limited (read-only) access privileges to the enterprise electronic health information system (HELP system). The hospital employs hospitalists. Intermountain also has 92 clinics. According to one source, 17,000 people can access (with varying levels of permission) their Clinical Data Repository (CDR) that is part of the HELP2 system. HELP2 is the next generation of their CDR, and spans inpatient and outpatient settings, but it is not yet comprehensive in terms of clinical content. HELP2 is a single enterprise-wide longitudinal electronic health record (EHR) system that spans both inpatient and outpatient settings. The HELP2 database receives data from a heterogeneous collection of ancillary systems that communicate with the HELP2 database via HL7 interfaces. Currently, HELP2 houses over 2,000,000 patient records. Intermountain Health Care has a health plan division called "Select Health," however, 35-40% of hospital admissions are traditional Medicare fee-for-service (FFS).

LDS Hospital and other Intermountain-owned hospitals have a decades-old tradition of ground breaking in-house development of information technology, and, more recently, they have entered into an alliance agreement with General Electric Healthcare to develop a next generation EHR system. The goal is to eventually run the enterprise using commercial-off-the-shelf (COTS) software. They have been and continue to be leading proponents and users of standard messaging.

Christus St. Joseph's Villa (St. Joseph's) is a non-profit skilled nursing facility (SNF) that receives the majority of their referrals from LDS Hospital, as well as two other local hospitals (Cottonwood and Altaview). St. Joseph's has 48 Medicare beds. They have a house physician who sees the majority of residents and a Medical Director who works at several SNFs in the community. None of St. Joseph's staff, including the Medical Director, may access (even on a read-only basis) the Intermountain HELP system. They have begun a conversion to the Meditech EHR, starting first with billing, admissions, medications and treatment sheets, and MDS reporting. The decision to use Meditech at all St. Joseph's sites was made at the corporate office based in Texas. St. Joseph's Corporate is a healthcare enterprise that mainly focuses on hospitals, and has only three SNFs, of which St. Joseph's Villa is one.

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¹ http://intermountainhealthcare.org/xp/public/documents/institute/faculty_clayton_building_system.pdf.

Community Nursing Service (CNS) is a visiting nurse service. They receive about 45-50 referrals from LDS Hospital per year, and about the same from another area facility, Cottonwood Hospital. They have used Infosys/Homesys for four years. This software supports intake, staff scheduling, OASIS reporting, billing, and has a payroll interface. They indicated they are just beginning to roll out some of the clinical modules available with this software vendor.

Hillside Rehabilitation Center (Hillside) is a non-profit SNF and long-term care (LTC) nursing home with 120 beds, 82 of which are used. Their owner and administrator, Warren Walker, has a history of embracing technology focused on improving their processes, increasing staff satisfaction by reducing their workload, and promoting quality care. They are currently implementing an EHR developed by Utah-based Bluestep;² it is being built on a core web application and the EHR is being designed for use in LTC environments. Thus, in contrast to Application Service Providers (ASPs), who provide web-accessible horizontal (generic) applications, Bluestep is a Vertical Service Provider (VSP); they have adapted their general purpose tools and applications to the specific needs of long-term care providers. Hillside has participated in the adaptation. A strength of the Bluestep LTC solution is its approach to the management of care workflow, including the management of tracking and acquisition of patient information such as a laboratory test result.

CareSource Home Health and Hospice is a home health agency (HHA) and inpatient hospice, the only in-patient hospice in Utah. They use McKesson's Horizon and have modified it for use in both their home care program as well as in their hospice.

See Table D.1 at the end of this appendix for a comprehensive compilation of the information requested from and supplied by each site, prior to their scheduled site visit.

II. SPECIFICS ON CLINICAL DATA SHARING

1. What data are shared? What should data should be shared but aren't?

LDS Hospital discharge planners noted that most SNFs desire the same information on patients about to be discharged from the hospital, but in need of post-acute or long-term care. These requirements include: demographics, history and physical (H&P), therapy notes, and medication list. They report that the most patients have completed a Physician Orders for Life Sustaining Treatment (POLST)³ and that this follows the patient. Hospital staff report that many nursing homes transferring a patient to the hospital send the POLST. (Under Utah regulation, a POLST is optional, but if it exists, the POLST should follow the patient during a transfer of care.)

² http://www.bluestep.net/.

³ http://uuhsc.utah.edu/ethics/UtahLaw.htm#POLST.

St. Joseph's reports that patients received from **Intermountain-owned** hospitals come with a demographic sheet, H&P, consultant reports, medications used in the past 72 hours, labs, radiology, and therapy notes. However, St. Joseph Villa informants report that they rarely receive a POLST from an Intermountain-owned hospital, or from any of their other referring hospitals.

CNS estimates that approximately 5% of patients are admitted to home care with a completed POLST from the hospital.

When admitting a new patient, **CareSource** requests a H&P, the demographic sheet, medication list, and current progress notes. On average, they receive this information 75% of the time and it requires (on average) three follow-up phone calls. Physical therapy notes and prior Disposable Medical Equipment (DME) authorizations seem to be the most problematic data elements to obtain.

When **Hillside** residents are admitted from a hospital, they request and generally receive a face sheet, H&P, nursing notes, therapy notes, and a medication list. Hillside reports that they need to call the referring hospital ward clerk to get information on IV medication use, chemotherapy use, and ventilator use.

St. Joseph's states that upon discharge to home, the nursing staff prepares a paper transfer packet to include a demographic sheet, H&P, therapy notes, wound care and a medication list. Upon transfer to the acute care hospital, nursing staff prepare the above information and add the POLST, recent labs and the MAR.

2. How are the data shared?

Electronic information exchange between unaffiliated levels of care was not observed during the site visit. All information transfer between the sites visited is by phone, fax, or paper accompanying the patient. Only rarely did post-acute care enterprises receive what they believed was sufficient information from the hospital on the first try; on average several phone calls were required to retrieve necessary information from paper or electronic records at the originating site. One exception was Cottonwood Hospital, another Intermountain Health Care enterprise; apparently, Cottonwood sends a complete printout of the patient's hospital EHR.

In some cases, the information is transmitted via a phone call with the hospital discharge planner who manually abstracts the desired data elements from both the paper and electronic charts.

CNS intake care coordinators enter information received from the hospital into HomeSys.

Hillside intake coordinators scan hospital information and upload into their Bluestep system.

St. Joseph's is beginning to enter patient information received into their newly-deployed Meditech system.

3. Timeliness and completeness of the data.

At **LDS Hospital**, the discharging physician dictates the complete discharge summary after the patient in discharged. The lag between when the patient is discharged and the dictation is complete varies depending on the physician and ranges from one day to three weeks. As observed, this means that the LDS Hospital discharge planner is the source of patient information provided to NHs until this summary is available. That said, LDS personnel have access to all current information.

4. Specifics about medications, labs, and radiology.

LDS Hospital has its own laboratory, radiology, and pharmacy services, and these services are supported by a mixture of locally developed and COTS applications that use a combination of local and national standards. LOINC codes are used for laboratory results and First Databank is used for medications.

St. Joseph's uses **Intermountain's** laboratory, and the lab results are communicated via fax or phone (in the case of urgent results). Nursing staff then reenter and send results to the medical director via her Blackberry®. St. Joseph's uses a single pharmacy (not Intermountain's pharmacy) and generally gets admission medication 4-6 hours after arrival.

CNS uses multiple labs, largely governed by insurance or geography.

CareSource works with a single pharmacy and communicates via fax or phone.

Hillside uses Schrieber lab and results are faxed (urgent results are called). Results do not populate Blue Step, that is, they will be (are) entered manually. Hillside has made a financial investment in a single pharmacy and can electronically send medication information. This information auto-populates the pharmacist's queue. However, scheduled "C-II" (Schedule 2 Controlled Substances) medications require a paper prescription in the State of Utah.

5. Areas under development (e.g., CPOE, decision-making tools).

LDS Hospital continues to improve the integration and interoperation of its many in-house software applications.

CNS is developing a physician portal that will allow physicians to sign orders electronically and modify the care plan.

Hillside is implementing decision support tools for nurses and CNAs within the framework of the BlueStep EHR. (Bluestep claims "knowledge management" as a feature of their core technology.)

6. Barriers to clinical data exchange.

At present, **LDS Hospital** physician progress notes are all in the paper chart. **Intermountain** does not allow home care or SNF coordinators into the hospital unless invited. Thus, they are not able to collect information on site.

St. Joseph's staff and **Hillside's** staff do not have access to the Intermountain electronic health record.

CNS identifies their biggest information barrier to clinical data exchange is identifying the patients' primary care physician in the community.

Current SNF information exchange goals were almost always expressed in the form of the desire for the completeness of a paper record from the hospital. Some sites acknowledged that a complete record might be "too much," or introduce accountability and liability concerns, but on balance all sites wanted more information that was commonly available.

7. Facilitators to clinical data exchange.

Placement decisions for Intermountain patients requiring post-acute care seems to be done almost exclusively by personal relationships--in the form of voice-to-voice communications between hospital discharge planners and the post-acute care intake coordinators. These personal relationships have taken years to develop and are the backbone of the referral process. One example of when such placements are over-ridden is a family request for geographic proximity. These personal relationships also support information exchange--from acute-care hospitals and emergency departments to post-acute care--both prior to and after a NH accepts the post-acute patient. At present, the two processes--placement and conveyance of patient information--are conjoined.

In sharp contrast to the personal relationships supporting post-acute care placement, the Utah Health Information Network (UHIN) is a community health information network that began in 1993. It is a coalition of health care providers, payors, and state government with, initially, the common goal of reducing costs by standardizing the transmission of administrative data, particularly payment data. The network community sets the data standards to which providers and payors voluntarily agree to adhere. The UHIN standards are then incorporated into the Utah state rule via the Insurance Commissioners Office. UHIN operates as a centralized secure network through which the majority of administrative health care transactions pass in the state. Nearly all payers and providers are participating in this project. UHIN developed a tool (UHINT), which they provide free of charge to providers for use in submitting electronic

claims. The tool is provided so that even the smallest provider can submit claims and electronically receive remittance advices. The exchange of standardized electronic transactions has drastically reduced the amount of paper processing required for payers and has streamlined the payment of claims and remits, which has resulted in providers receiving payment more quickly. Under an Agency for Healthcare Research and Quality (AHRQ) grant, UHIN is pilot testing the exchange of a limited set of clinical data (medication history from payer to hospital), discharge summaries, history and physical, and laboratory results) with a small number of providers. The results of this pilot study are not yet available, but developers note evidence of demand for this service.

UHIN developers also are noticing an acceleration of development and feature requests given current software best practices--such as messaging and web-based connectivity. This is in contrast to formerly used "object-based" standards. Evolution of the UHIN is now more rapid, and more responsive to evolving user requests.

III. TECHNOLOGY

1. Hardward and software descriptions of the main health delivery system and the PAC/LTC settings.

The HELP2 system at LDS Hospital is a single large longitudinal EHR that integrates data across all care settings. It receives data from a heterogeneous collection of ancillary systems via HL7 Version 2 messaging that is standard across the enterprise. The HELP2 system was initially deployed in the outpatient environment but is now seeing widespread use within Intermountain hospitals. HELP2 desktops need support only a web browser with adequate computing power. HELP, (the first version of the system), is implemented on Tandem hardware, using the Tandem Application Language (TAL) programming language and PTXT Application Language (PAL), and uses the proprietary Tandem file system (Enscribe). The HELP system is still the primary system used in all Intermountain hospitals. Thus, HELP2 is intended as a complete replacement for the HELP system, but the transition from HELP to HELP2 enterprise wide will be a very long process.

2. Architecture of EHR system at main HDS.

a. Are they using CHI-endorsed and other HIT content and messaging standards? If so, which ones are they using? Messaging? Vocabulary? Direct care FM?

Perhaps to a greater degree than in any comparable large acute care hospital, internal inter-system communication is done using internally standard HL7 Version 2 messages. LDS Hospital and other Intermountain enterprises have pioneered such use, and incremental economies of scale were claimed for recent integration efforts. In contrast to most acute care medical centers where standards adoption is incidental to

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⁴ http://intermountainhealthcare.org/xp/public/physician/help2/learnmore/requirements.xml.

other considerations, LDS Hospital has adopted standards both because they are standards and because of perceived benefit.

Not unexpectedly, other than LOINC and HIPAA required terminologies CHI standards were not visible. For example, there was no visible use of SNOMED.

b. Description of each EHR system and HIT solution(s) to support HIE.

Currently, **LDS Hospital** has a rich and heterogeneous mixture of internally developed and COTS systems centered around core systems developed internally or in partnership with 3M. As of this writing, Intermountain has expanded the scope of its partnership with GE to further develop HELP2 capabilities.⁵

St. Joseph's, CNS, and CareSource run their locally-deployed, proprietary applications on mini-computers, accessible from Local Area Networks (LAN) and dial-up lines. Hillside is making use of the web-based (remotely hosted) Bluestep product. CareSource uses McKesson Horizon, and they indicated that although they have not necessarily taken advantage of this fact, McKesson does have the flexibility to have custom programming done at a cost. McKesson's future plans include going "platform independent," much like today's web browsers. It was unclear whether or not CareSource would immediately be taking advantage of these innovations when they become available.

c. If they have used "best of breed" how are these different software integrated?

Integration at **LDS Hospital** is via locally standard HL7 Version 2 messages using locally developed content standards, except for LOINC, some HIPAA standards, and occasional use of proprietary content solutions such as drug knowledge base (First Databank).

At **Hillside**, Bluestep achieves functional integration by implementing all functions using Bluestep core components and tools; thus, at present the Hillside system does not interoperate with other systems--though, because of its use of software "best practices" there is no reason why it could not easily do so in the future.

UHIN is achieving integration through the incremental deployment of state-wide data standards, that local systems "program to." At present, these standards are largely Utah-specific, but work is underway on the deployment of content standards. One example appears in a Utah State Rule⁶ that describes use of national standards for claims-related transactions as an objective.

⁵ http://egems.gehealthcare.com/proom/internet/NewsandEvents.jsp?release_id=11972.

⁶ http://www.rules.utah.gov/publicat/code rtf/r590-164.rtf.

2. Architecture of EHR systems at PAC/LTC (if applicable) and HIT solution(s) to support HIE.

As described above, heterogeneous components inter-operate within LDS using internally standard HL7 Version 2 messages. Many components make use of a central patient data repository (another component) in addition to or instead of their own component-specific databases.

Hillside makes use of the Bluestep's Vertical Service Provider (VSP) architecture, a variation on the web-based Application Services Provider (ASP).

3. How are the data stored? Shared? Accessed? Transmitted? Accepted at other setting? Entered? Etc.

The main LDS (current) patient record store is a proprietary database developed jointly by 3M and Intermountain. Archival (older) patient information is still stored in the LDS-developed HELP system.

At present, this information is not shared electronically outside LDS. Instead, the relevant information is transferred either voice-to-voice by the discharge planner, via fax, or paper copies accompanying the patient.

4. How are you tackling any interoperability issues using standards-based EHR systems or other HIT solutions for health information exchange?

Interoperation at LDS is currently aimed at integrating all information technology components used in LDS in-patient and outpatient care. Once intra-LDS integration is achieved, UHIN involvement will be one path by which both LDS, specifically, and Intermountain, in general, interoperate with other Utah healthcare enterprises including SNFs.

5. How does electronic health information exchange (e-HIE) vary between affiliated and unaffiliated providers within a single HDS?

Among LDS-affiliated providers, there is one method of interoperation--HL7v2-based messaging; currently the only non-affiliated interoperation is through the UHIN.

Other sites visited did not interoperate with non-affiliated sites.

6. How does e-HIE vary when exchanging to outside entities?

Exchange using the UHIN is currently limited to administrative transactions; as described above, limited clinical exchange is being piloted.

At **Hillside**, the Bluestep system being deployed will make it possible, technically, to develop bilateral interoperation (e.g., to get lab results), and to communicate with the UHIN.

The applications employed at the other sites--**St. Joseph's**, **CNS**, and **CareSource**--are not designed with interoperation in mind; thus, exchange of information with the UHIN will become more difficult as the scope of doing so increases --from administrative data to clinical data.

IV. ORGANIZATIONAL ISSUES

1. Business Case for PAC/LTC.

With the exception of **LDS Hospital**, the settings visited were unaware of the UHIN, and its efforts to support and facilitate health information exchange. The exception to this is at **Hillside** where they did recognize that Medicaid claims now were solely done electronically, but were unaware that they were transmitted through the UHIN. Stan Huff is a consultant on the AHRQ-funded UHIN pilot, but no one else, including LDS Hospital staff, was aware that the UHIN project was in progress.

None of the post-acute or long-term care settings visited had any immediate or future plans to implement HIT to improve and/or facilitate HIE. Although LDS Hospital has the technical infrastructure in place to share data with other settings, when asked about sharing data with community PAC/LTC settings, Stan Huff's response was "standards are not widely used with outside entities because no one has made it a priority...[the business case for LDS Hospital] is population driven. There is a limited amount of money to devote to EHR systems, and we use scarce HIT resources where they will have the greatest benefit for the largest number of patients. PAC/LTC is not the highest priority because they have few medical events or patient visits when compared to outpatient facilities or the acute care hospitals." Stan Huff went on to say that "...most SNFs/NHs do not have the IT expertise to accept electronic data, and they are only a small piece of the pie. The individual institutions are not large enough to support IT staff that can deal with electronic data exchange."

2. Adoption of EHR systems.

LDS Hospital developed its own EHR system unilaterally and later in collaboration with their software vendor 3M. They used their own vocabularies and when standards became available they used them opportunistically; however, when they first implemented the HELP system when few if any standards were available.

For all the post-acute and long-term care settings visited, vendor selection was not based on if they used standards or if they had an interoperable EHR system. With the exception of **LDS Hospital** and **Hillside**, none of these settings is involved in standard development organizations; none are they members of the UHIN.

V. CONCLUSION/FINAL THOUGHTS

LDS Hospital has a long history of groundbreaking HIT development. More recently, their technical leadership has included an intra-enterprise commitment to use messaging--currently their implementation of the HL7v2 standard--for all intercomponent communication.

Perhaps inspired by this example and by the early use of the internet in Utah, former Governor, now HHS Secretary, Michael Leavitt, led the creation of a state-wide network to support state services and educational institutions--Kindergarten through grade 12 as well as post-secondary institutions. This popular and highly successful effort raised consciousness around the state and may have laid the ground work for the collaboration necessary to launch the now successful RHIO (Utah Health Information Network [UHIN]), and the fact that it includes erstwhile (network) "competitors."

Medicaid reimbursement is incrementally moving to the UHIN, as we saw at Hillside Rehabilitation that is now using UHIN to submit their Medicaid claims, as six months ago, Medicaid suspended their use of bulletin boards to submit the claims.

The RHIO is already clearly a success today--as measured by use and demand for services--although post-acute and LTC use does not seem to be a current priority, excepting use for Medicaid reimbursement. Initial drivers are: (1) patient eligibility; (2) provider credentialing and enrollment with payers; and (3) reimbursement. They have started a pilot on the exchange of clinical data, but it began in late summer, so it is too early to discuss findings. While serving the specific needs of post-acute and long-term care may not be a current RHIO priority, these care settings may derive significant benefit from general (planned) RHIO activities such as the uniform reporting of lab tests and e-prescribing.

Finally, while all sites wish they had a patient-centric longitudinal record, there is little if any movement to meet that goal. There is awareness of the possibility and potential of patient-accessible/writable health records, especially if they were UHIN accessible but the site visitors did not know of any plans, either short-term or long-term to facilitate this concept.

| TABLE D.1: General Health Information Supplied by Visited Sites* | | | | | | | | |
|---|---|---|--------------------------------|--------------------------------------|--|--|--|--|
| Name of Health System | Intermountain Health Care, LDS Hospital | Community Nursing Services | Christus St. Joseph's Villa | Hillside Rehabilitation Center | CareSource Home Health and Hospice | | | |
| Location | Salt Lake City, UT | Midvale, UT | Salt Lake City, UT | Salt Lake City, UT | Salt Lake City, UT | | | |
| Year established | 1975 | 1925 | 1947 | 1970 | 1997 | | | |
| Area served (urban, rural, both) | Intermountain both LDS Hospital urban, major referral center, established in 1905 | Urban and rural | Urban | Urban | Urban | | | |
| Ownership | Non-profit | Non-profit | Non-profit | Non-profit | For profit, privately held, freestanding | | | |
| No. full-time employees | Intermountain has 27,000 total employees LDS Hospital has 4,700 | 161 full-time (plus 195 part- time) | | 75 | 66 | | | |
| No. of Nursing Homes (owned, affiliated) | 0 owned | 0 | 1 owned | 0 owned 3 affiliated | 0 | | | |
| No. of Home Health Agencies (owned, affiliated) | 1 owned | 1 owned | 0 | 0 owned 0 affiliated | 1 owned | | | |
| No. of Physician Practices (owned, affiliated) | 96 owned | 0 | 0 | 0 owned 0 affiliated | 1 owned | | | |
| Are physicians affiliated with health delivery system or are they independent? | Affiliated, employed, and independent | n/a | Independent | n/a | Affiliated | | | |
| Inpatient pharmacy? | Yes | n/a | No | No | No | | | |
| Does SNF use dedicated pharmacy or contract with large/retail, or multiple pharmacies? | n/a | n/a | Dedicated | Dedicated | Dedicated | | | |
| No. of Pharmacies outpatient | Intermountain has 19 LDS Hospital has 1 | Home infusion only | 1 | 0 | 0 | | | |
| In-house laboratory? | Yes | n/a | No | No | No | | | |
| How many outside laboratories? | 3 | | 1 | 1-2 | 2 | | | |
| In-house radiology department? | Yes | n/a | No | No | No | | | |
| How many outside radiology centers/MR centers do you work with? | 0 | n/a | 1 | 3 | 0 | | | |

| TABLE D.1 (continued) | | | | | | | | |
|--|---|--|--|--------------------------------------|--|--|--|--|
| Name of Health System | Intermountain Health Care, LDS Hospital | Community Nursing Services | Christus St. Joseph's Villa | Hillside Rehabilitation Center | CareSource Home Health and Hospice | | | |
| Percentage of overall budget dedicated to IT? | | | | | | | | |
| Electronic Health Record (EHR) systemscheduling, billing, or claims? | Yes | Yes | Yes | Yes | Yes | | | |
| Clinical Electronic Health Record (EHR) system? | Yes | No | No (in process of development) | Yes | Yes | | | |
| Primary software vendor for electronic health information system (if applicable) | In-house developed | Infosys/ Homesys | Meditech | American Data | McKesson and Resource Systems | | | |
| Short-term (6 months?) HIE* future plans | Discuss at interview | In process of implementing clinical software | Developing Meditech for clinical records | New system | | | | |
| Long-term HIE* future plans | Discuss at interview | | | Maintain | | | | |

^{*} Information in this table was collected from a "General Information About Health Care Setting" form sent to all sites prior to the scheduled site visit.

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
http://aspe.hhs.gov/daltcp/reports/2007/HIEcase.htm

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