Oregon Office of Health Information Technology

2011 Long-Term Care Survey
Summary of Results

Executive Summary

In August 2011 the Oregon Office of Health Information Technology (OHIT) conducted a survey of the state's long-term care community. The purpose of the survey was to determine the extent of technology integration currently existing within Oregon's long-term care (LTC) community and identify what challenges exist to expanding the use of health information technology (HIT) in long-term care settings

Oregon's long-term care community consists of 2,274 licensed long-term care facilities with 42,590 licensed beds. This includes 140 nursing homes with 11,832 beds, 209 assisted living facilities with 13,950 beds, 235 residential care facilities with 8,942 beds, and 1,690 licensed non-relative adult foster homes with 7,866 beds.[1] With an approximate population aged 75 years and older of 246,307 in Oregon, the 42,590 long-term care facility beds yield a rate of 172.9 beds per 1,000 persons aged 75+. The senior population (age 65+) in Oregon is growing much faster than the total population of the state – in 2010 the annual growth rates were 1.7% and 1.2%, respectively. About 13.4% of the total population is aged 65 years and older.

While there are a number of published reports regarding electronic health records (EHR) in office-based physician practices and hospitals, there is a lack of national survey data or literature focused on EHR and HIT adoption in long-term care settings. Recent studies that address long-term care (Cherry 2011[2] and 2009[3], and Kramer 2010[4]) report that the long-term care industry lags far behind other segments of the US healthcare system in EHR adoption. The reports identify the major barriers to adoption as cost, training, complex implementation processes, and lack of evidence that systems can deliver improvements. The process for certifying EHRs for long-term care settings only began recently, with the first EHR vendor product certified by the Certification

[1] "Oregon: Long-Term Care and the Office of the Long-Term Care Ombudsman in 2010: A Special Report to the Senate Human Services and Rural Health Policy Committee," September 14, 2011, accessed December 13, 2011, http://www.oregon.gov/LTCO/docs/MarySpeech2.pdf.

[2] Barbara Cherry, "Assessing Organizational Readiness for Electronic Health Record Adoption in Long-Term Care Facilities," *Journal of Gerontoligical Nursing* 37 (October 2011), accessed December 13, 2011, doi: 10.3928/00989134-20110831-06.

[3] Barbara Cherry, Eric W. Ford and Lori T. Peterson, "Long-Term Care Facilities Adoption of Electronic Health Record Technology: A Qualitative Assessment of Early Adopters' Experiences," October 1, 2009, accessed December 13, 2011, http://www.dads.state.tx.us/news_info/publications/legislative/electronichealthrecords/2010.pdf

[4] Andrew Kramer, Meg Kaehny, Angela Richard and Karis May, "Survey Questions for EHR Adoption and Use in Nursing Homes," January 2010, accessed December 13, 2011, http://aspe.hhs.gov/daltcp/reports/2010/EHRques.pdf

Commission for Health information Technology (CCHIT) in November 2011.[5]

Invitations to participate in the Oregon long-term care HIT survey were sent via e-mail to approximately 600 Oregon long-term care facility members of the Oregon Health Care Association (OHCA)[6] and the Oregon Alliance of Senior and Health Services (OASHS)[7]. OHCA and OASHS are long-term care trade associations in Oregon that provide services and resources to a wide variety of members in the long-term care and senior housing communities. The online survey was open from July 5, 2011 to August 22, 2011. Survey responses were received from 63 organizations, covering 116 separate facilities and a total of 7,933 long-term care residents/patients. The facility response rate was approximately 20%.

This report summarizes the survey results. Responses were received both from representatives of individual long term care facilities and from organizations responding for multiple facilities. The results were analyzed at both the "entity" level and the "facility" level, where an entity is any organization, site, or facility that responded to the survey, and a facility is a single site or location. For example, if an organization's response covered five separate facilities, the organization is one entity, and each of the five locations is a single facility.

Survey Highlights

Information Technology Use: Most of the long-term care community utilizes computer and Internet technology (96% of entities, 98% of facilities), including web-based applications (78% of entities, 88% of facilities). However, less than a third of entities and facilities use an electronic health record (EHR) system (30% of entities, 28% of facilities) or an electronic medication administration (eMAR) system (19% of entities, 22% of facilities). Less than half of all respondents have electronic administration systems (35% of entities, 42% of facilities.)

Electronic Health Record (EHR): Of the respondents without an EHR, less than half plan to implement an EHR in the next five years (44% of entities), while 49% are interested but have no plans for implementation.

The main barriers to implementing an EHR, as identified both by respondents with and without EHRs, are the cost of purchase and implementation, and the requirement of staff training. Users and non-users of EHRs also share the same perceptions of the key

[5] "Commission Announces First Certified Products for Long Term and Post Acute Care," CCHIT, accessed December 13, 2011, http://www.cchit.org/media/news/2011/11/commission-announces-first-certified-products-long-term-and-post-acute-care.

[6] OHCA is a non-profit trade association representing more than 620 nursing homes, assisted living, residential care, senior housing facilities, in-home and home health care agencies. See http://www.ohca.com for more information.

[7] OASHS is the state association of not-for-profit, mission-directed organizations dedicated to providing quality housing, health, community and related services to the elderly and disabled. See http://www.oashs.org for more information.

benefits of an EHR system: greater efficiency, quality monitoring capabilities, decreased errors, and improved resident care management.

Electronic Medication Administration Record (eMAR): Only half of entities and facilities (50% of entities, 51% of facilities) without an EHR plan to change or expand their current technologies to increase HIT functionality. Among them, over 40% (41% of entities, 44% of facilities) identified electronic medication administration records (eMAR) as a top priority for expansion, nearly twice the level of interest for EHRs. eMARs were also identified as the highest priority for expansion among respondents that have EHRs (56% of entities, 70% of facilities).

Information Exchange: Responses indicated that the large majority of information exchange in the long-term care community is done with paper, even among entities and facilities that have EHRs. Fax, including electronic fax, is the primary method of exchanging patient/resident health information with hospitals, labs, pharmacies, specialists, affiliated providers, and non-affiliated providers. Less than 10% of entities and facilities participate in any type of exchange via an EHR system, and at the time of the survey, the minimal electronic exchange occurring through EHRs was essentially only happening with pharmacies and affiliated providers.

Despite the current low level of electronic information sharing, there is a clear interest within the long-term care community in expanding technology and coordination in order to improve and increase the usage of electronic exchange. Respondents are most interested in developing greater electronic exchange capabilities and relationships with labs and pharmacies, followed by sharing with hospitals.

2011 Long Term Care Survey Results Overview

Key Terms

- Entity: represents any long-term care organization, site, or facility that responded to this survey. An organization whose response covered multiple facilities within the organization is considered one entity. An unaffiliated facility whose response covers just that facility is one entity.
- Facility: represents one long-term care site or facility. If an organization's response covered five different locations within the organization, those locations are considered five facilities.
- Settings: multiple long term care settings are considered in the analysis of the survey. These include: assisted living facilities, nursing facilities, memory care communities, residential care facilities, rehabilitation services, retirement homes, continuing care retirement community, respite care, adult day care, and adult foster homes.

Oregon Long Term Care Survey

As shown in Table 1, OHIT's 2011 Long Term Care Survey received complete responses from 63 entities, whose responses covered a total of 116 long-term care facilities in Oregon.

Table 1. Survey Response Sample Size

Total Entities that Completed Survey (Used in Analysis)	63
Total Facilities Covered by Analysis	116

Table 2 shows the distribution of entities responding for one facility and those responding for multiple facilities. The total facility count of 116 consists of all single facility respondents plus the total number of facilities covered by multiple facility respondents.

Table 2. Response Characteristics (Single Facility vs. Multiple Facilities)

	Entity Response Rate	Entity Response Count (n=63)	Facility Response Rate	Facility Response Count (n=116)
Single facility	85.7%	54 (1)	46.6%	54 (1)
Multiple facilities	14.3%	9	53.4%	62

(1) Includes 12 individual facility responses associated with corporate entities that operate multiple facilities

The 63 responding entities operate from one to six different types of long term care settings within their organization or facility: 31 operate one setting, 17 operate two types of settings, eight operate three types of settings, and seven operate four or more types of settings. Table 3 shows the number of responses for each type of setting.

Table 3. Type of Settings Covered by Survey

	Entity Response Rate	Entity Response Count (n=63)
Assisted Living Facility	50.8%	32
Nursing Facility	46.0%	29
Memory Care Community	25.4%	16
Residential Care Facility	20.6%	13
Rehabilitation Services	19.0%	12
Retirement Home	14.3%	9
Continuing Care Retirement Community	6.3%	4
Respite Care	4.8%	3
Adult Day Care	3.2%	2
Foster Home	1.6%	1

Entities and facilities that responded to the survey serve a total of 7,933 long-term care residents, with 5,382 in licensed settings.

Table 4. Population Characteristics (Number of Residents)

	Total LTC Residents	Entity Response Count	Facility Response Count	Avg. Residents Per Entity	Avg. Residents Per Facility
Entire Community	7,933	62	115	128	69
Licensed Setting (1)	5,382	63	116	85	46

(1) The scope of responses for this question may be inconsistent across all surveys, likely due to differing interpretations of the meaning of “Licensed Setting”.

Use of Technology

Table 5 indicates the types of technology used by entities and facilities. While most of the long-term care community utilizes computer and Internet technology, including web-based applications, less than a third of entities and facilities currently use an EHR system and less than half currently have electronic administrative systems.

Table 5. Technology Use

	Entity Response Rate	Entity Response Count (n=63)	Facility Response Rate	Facility Response Count (n=116)
Internet	96.8%	61	98.3%	114
Computers	96.8%	61	98.3%	114
Web-based applications	77.8%	49	87.9%	102
Electronic Administrative Systems	34.9%	22	42.2%	49
Point-of-care technology (i.e. tablets, laptops, kiosks, in-room computers)	30.2%	19	38.8%	45
Electronic Health Record (EHR) Systems	30.2%	19	28.4%	33
Electronic Medication Administration Record (eMAR)	19.0%	12	22.4%	26
No technology is in place	1.6%	1	0.9%	1
Other (1)	3.2%	2	1.7%	2

(1) "Other" responses: "MicroMain, Point Of Service, ADP, Security systems," and "Electronic MDS system."

Tables 6a and 6b show how entities and facilities, respectively, perform various clinical and administrative functions. The tables are organized into two groups based on whether or not the respondents have an EHR system in use. Non-EHR users are almost exclusively and consistently reliant on paper. Even for entities and facilities with EHRs, there remains a considerable reliance on paper for clinical and administrative functions.

Table 6a. Functions (Entities) (1)

	NO EHR					WITH EHR				
	Paper	**EHR** (2)	**Point-of-care**	**Other Technology** (3)	**Count**	**Paper**	**EHR**	**Point-of-care**	**Other Technology** (3)	**Count**
Clinical notes	100.0%	4.7%	0.0%	4.7%	43	36.8%	68.4%	15.8%	0.0%	19
Physician orders	97.6%	0.0%	0.0%	4.8%	42	31.6%	78.9%	10.5%	0.0%	19
Medication administration record (MAR)	95.3%	2.3%	0.0%	7.0%	43	35.3%	76.5%	11.8%	0.0%	17
Treatment administration record (TAR)	94.9%	0.0%	0.0%	7.7%	39	38.9%	77.8%	11.1%	0.0%	18
Medication order	95.3%	0.0%	0.0%	7.0%	43	33.3%	72.2%	0.0%	0.0%	18
Regulatory assessments	76.7%	11.6%	2.3%	16.3%	43	17.6%	88.2%	5.9%	0.0%	17
Care-service plan	65.1%	16.3%	4.7%	23.3%	43	5.3%	94.7%	0.0%	0.0%	19
Care-service plan summary report	58.5%	17.1%	4.9%	22.0%	41	10.5%	89.5%	0.0%	0.0%	19
Discharge/transfer report	92.7%	2.4%	2.4%	9.8%	41	31.6%	68.4%	0.0%	0.0%	19
Consult report	97.4%	0.0%	2.6%	5.1%	39	44.4%	44.4%	0.0%	11.1%	18
Advance directives	97.7%	0.0%	0.0%	2.3%	43	77.8%	33.3%	0.0%	0.0%	18
Physicians Orders for Life-Sustaining Treatment (POLST)	100.0%	2.3%	0.0%	0.0%	43	83.3%	38.9%	0.0%	5.6%	18
Lab orders and results	95.1%	0.0%	0.0%	4.9%	41	73.7%	57.9%	0.0%	0.0%	19
Radiology orders and results	100.0%	0.0%	0.0%	0.0%	38	63.2%	63.2%	0.0%	0.0%	19
Diagnostic test orders and results	100.0%	0.0%	0.0%	0.0%	37	63.2%	63.2%	0.0%	0.0%	19

(1) For full response counts see Appendix A Table A1-1.
(2) Some respondents that previously indicated that they did not use an EHR responded here that they did use an EHR for recording certain information. This may indicate a lack of understanding of the definition of an EHR system (e.g., the difference between an EHR and other administrative support systems).
(3) For responses for "Other Technology" see Appendix A Table A5.

Table 6b. Functions (Facilities) (1)

	NO EHR					WITH EHR				
	Paper	**EHR** (2)	**Point-of-care**	**Other Technology** (3)	**Count**	**Paper**	**EHR**	**Point-of-care**	**Other Technology** (3)	**Count**
Clinical notes	100.0%	35.4%	0.0%	3.7%	82	21.2%	39.4%	9.1%	0.0%	33
Physician orders	98.8%	0.0%	0.0%	2.5%	81	18.2%	45.5%	6.1%	0.0%	33
Medication administration record (MAR)	97.6%	15.9%	0.0%	3.7%	82	19.4%	41.9%	6.5%	0.0%	31
Treatment administration record (TAR)	97.0%	0.0%	0.0%	4.5%	66	21.9%	43.8%	6.3%	0.0%	32
Medication order	97.6%	0.0%	0.0%	3.7%	82	19.4%	41.9%	0.0%	0.0%	31
Regulatory assessments	87.8%	24.4%	1.2%	8.5%	82	9.7%	48.4%	3.2%	0.0%	31
Care-service plan	64.6%	42.7%	2.4%	13.4%	82	3.0%	54.5%	0.0%	0.0%	33
Care-service plan summary report	55.0%	43.8%	2.5%	18.8%	80	6.1%	51.5%	0.0%	0.0%	33
Discharge/transfer report	96.3%	20.0%	1.3%	11.3%	80	18.2%	39.4%	0.0%	0.0%	33
Consult report	98.7%	0.0%	1.3%	2.6%	78	25.0%	25.0%	0.0%	6.3%	32
Advance directives	98.8%	0.0%	0.0%	1.2%	82	43.8%	18.8%	0.0%	0.0%	32
Physicians Orders for Life-Sustaining Treatment (POLST)	100.0%	2.4%	0.0%	0.0%	82	46.9%	21.9%	0.0%	3.1%	32
Lab orders and results	95.6%	0.0%	0.0%	4.4%	68	42.4%	33.3%	0.0%	0.0%	33
Radiology orders and results	100.0%	0.0%	0.0%	0.0%	65	36.4%	36.4%	0.0%	0.0%	33
Diagnostic test orders and results	100.0%	0.0%	0.0%	0.0%	64	36.4%	36.4%	0.0%	0.0%	33

(1) For full response counts see Appendix A Table A1-2.
(2) Some respondents that previously indicated that they did not use an EHR responded here that they did use an EHR for recording certain information. This may indicate a lack of understanding of the definition of an EHR system (e.g., the difference between an EHR and other administrative support systems).
(3) For responses for “Other Technology” from EHR non-users see Appendix A Table A5.

Technology Priorities

Table 7, divided into users and non-users of EHRs, indicates whether entities and facilities plan to change or expand their current technology to increase HIT functionality. About half of entities and facilities without an EHR currently plan on changing or expanding their technology. Similarly, about half of entities with an EHR plan to upgrade or expand their technology. Over 70% of facilities with an EHR have plans for technological expansion.

Table 7. Plans for Changing or Expanding Current Technology

	NO EHR				WITH EHR			
	Entity Rate	**Entity Count (n=40)**	**Facility Rate**	**Facility Count (n=74)**	**Entity Rate**	**Entity Count (n=19)**	**Facility Rate**	**Facility Count (n=33)**
Plan to change/expand	50.0%	20	51.4%	38	52.6%	10	72.7%	24
Do not plan to change/expand	50.0%	20	48.6%	36	47.4%	9	27.3%	9

Table 8 shows the top priorities for entities and facilities that plan to expand their current technology. Electronic medication administration records (eMAR) were identified by entities and facilities with and without EHRs as the top priority. Over 40% of entities and facilities without an EHR listed an electronic medication administration record (eMAR) as a top priority for expansion, nearly double the number for EHRs. The rate of respondents that listed eMARs as a priority is even higher among EHR users: 56% of entities and 70% of facilities. EHR users also had a significantly higher rate for electronic treatment authorization request (eTAR).

Table 8. Priorities for Technology Expansion

	NO EHR				WITH EHR			
	Entity Rate	**Entity Count (n=22)**	**Facility Rate**	**Facility Count (n=55)**	**Entity Rate**	**Entity Count (n=9)**	**Facility Rate**	**Facility Count (n=23)**
Electronic medication administration record (eMAR)	40.9%	9	43.6%	24	55.6%	5	69.6%	16
EHR/EMR	27.3%	6	21.8%	12	n/a	n/a	n/a	n/a
Electronic treatment authorization request (eTAR)	13.6%	3	5.5%	3	33.3%	3	69.6%	16
Point-of-care technology	13.6%	3	27.3%	15	22.2%	2	13.0%	3
Unknown	13.6%	3	5.5%	3	0.0%	0	0.0%	0
Billing connections to hospital programs	4.5%	1	1.8%	1	0.0%	0	0.0%	0
Care costs	4.5%	1	1.8%	1	0.0%	0	0.0%	0
EHR training	4.5%	1	1.8%	1	0.0%	0	0.0%	0
Electronic charting	4.5%	1	1.8%	1	0.0%	0	0.0%	0
Time and other operational efficiencies	4.5%	1	1.8%	1	11.1%	1	4.3%	1
Electronic lab results receipt	0.0%	0	0.0%	0	11.1%	1	4.3%	1

EHR Plans (Non-Users)

Of the 116 long-term care facilities covered by the survey, 83 do not currently have an EHR system. As shown in table 9, about 44% of entities without an EHR plan to implement one in the next five years, while 49% are interested but have no plans. The percentage of facilities that plan to implement an EHR in the next year is much higher than for entities, indicating that systems or organizations with multiple facilities have more immediate plans than independent facilities.

Table 9. Plans for EHR Implementation

	Entity Response Rate	Entity Response Count (n=42)	Facility Response Rate	Facility Response Count (n=76)
Less than a year	16.3%	7	47.6%	39
1-2 years	16.3%	7	8.5%	7
2-5 years	11.6%	5	6.1%	5
5 or more years	0.0%	0	0.0%	0
Interested, but no plan	48.8%	21	28.0%	23
Not Interested	4.7%	2	2.4%	2

Table 10 highlights the perceived benefits of using an EHR, as identified by non-EHR-users. Decreased errors and improved resident care management were the two benefits identified most frequently by entities and facilities that do not currently have an EHR.

Table 10. EHR Benefits (Non-Users)

	Entity Response Rate	Entity Response Count (n=43)	Facility Response Rate	Facility Response Count (n=82)
Decreased errors	62.8%	27	64.6%	53
Improved resident care management	58.1%	25	76.8%	63
Greater efficiency	55.8%	24	62.2%	51
Quality monitoring	51.2%	22	58.5%	48
Improved communication within facility	44.2%	19	63.4%	52
Improved care planning	37.2%	16	59.8%	49
Data exchange with other providers or facilities	37.2%	16	45.1%	37
Reduced storage	34.9%	15	26.8%	22
Resident safety	32.6%	14	48.8%	40
Improved oversight of staff	30.2%	13	61.0%	50
Staff empowerment and satisfaction	27.9%	12	53.7%	44
Increased resident and family satisfaction	20.9%	9	50.0%	41
Improved reporting capabilities	20.9%	9	29.3%	24
Billing accuracy and efficiency	20.9%	9	11.0%	9
Cost savings	14.0%	6	25.6%	21
Other (1)	2.3%	1	1.2%	1

(1) "Other" response: "All of the above."

Table 11 shows the EHR functions that non-users would be interested in performing with an EHR. Tracking medications electronically was the most common function identified, followed by basic functions, such as clinical notes, and electronic entry of care plans.

Table 11. EHR Functions (Non-Users)

	Entity Response Rate	Entity Response Count (n=42)	Facility Response Rate	Facility Response Count (n=81)
Track medications electronically	83.3%	35	91.4%	74
Basic functions (i.e., patient/resident notes)	81.0%	34	75.3%	61
Enter care plans electronically	73.8%	31	85.2%	69
Enter and review orders	69.0%	29	50.6%	41
Electronically place orders	59.5%	25	45.7%	37
Track behavior electronically	54.8%	23	63.0%	51
Scan & store paper records	50.0%	21	51.9%	42
Claims and billing support	42.9%	18	42.0%	34
Electronic Prescribing (e-Prescribing)	40.5%	17	35.8%	29
Update and review lists	31.0%	13	23.5%	19
Other (1)	4.8%	2	3.7%	3

(1) For responses for "Other" see Appendix A Table A5.

Table 12 lists the clinical decision support tools that non-EHR-users expressed an interest in. For each decision support tool listed, over 50% of entities and facilities indicated a level of interest.

Table 12. EHR Clinical Decision Support Tools (Non-Users)

	Entity Response Rate	Entity Response Count (n=42)	Facility Response Rate	Facility Response Count (n=69)
Warnings of drug interactions and side effects	83.3%	35	89.9%	62
Prompts to order tests, studies, or other services	78.6%	33	87.0%	60
Reminders for guideline-based interventions and screenings	66.7%	28	79.7%	55
Follow-up notifications	64.3%	27	76.8%	53
Highlighting out of range lab levels	61.9%	26	55.1%	38
Other	0.0%	0	0.0%	0

Entities and facilities without an EHR identified cost (of purchase and implementation) and the requirement of staff training as the major barriers to implementing an EHR system. Table 13 shows that despite costs being a primary barrier to EHR implementation, there is significantly less concern about achieving an adequate return on investment.

Table 13. Barriers to EHR Implementation (Non-Users)

	Entity Response Rate	Entity Response Count (n=42)	Facility Response Rate	Facility Response Count (n=76)
Expense of purchase	81.0%	34	89.5%	68
Expense of implementation	76.2%	32	69.7%	53
Staff would require training	47.6%	20	69.7%	53
Lack of expertise to lead or organize the project	21.4%	9	14.5%	11
Staff is satisfied with paper-based records	19.0%	8	26.3%	20
Community is too small	19.0%	8	13.2%	10
Security and privacy issues	14.3%	6	27.6%	21
Inadequate return on investment	14.3%	6	7.9%	6
Concern that product will fail	7.1%	3	5.3%	4
EHR products current available do not satisfy our needs	4.8%	2	2.6%	2
Too many EHR products to choose from	2.4%	1	1.3%	1
Loss of productivity	2.4%	1	1.3%	1
Other (1)	7.1%	3	5.3%	4

(1) For responses for "Other" see Appendix A Table A6.

Electronic Health Record (EHR) Use

Less than a third of the entities and facilities covered by the survey are currently using an EHR system in their long-term care settings (30% of entities, 28% of facilities). Table 14 shows how long these entities and facilities have been using an EHR. For more information about the EHR systems in use see Appendix A Tables A9-1 and A9-2**.**

Table 14. Length of EHR Implementation and Use

	Entity Response Rate	Entity Response Count (n=19)	Facility Response Rate	Facility Response Count (n=33)
Less than a year	36.8%	7	27.3%	9
1-2 years	21.1%	4	12.1%	4
2-3 years	5.3%	1	3.0%	1
4 or more years	36.8%	7	57.6%	19

As shown in table 15, the EHR satisfaction level is generally high among EHR users, with over 85% of entities and facilities indicating a level of "satisfied" or "very satisfied."

Table 15. EHR Satisfaction Level

	Entity Response Rate	Entity Response Count (n=19)	Facility Response Rate	Facility Response Count (n=33)
Very Satisfied	36.8%	7	21.2%	7
Satisfied	52.6%	10	72.7%	24
Neutral	5.3%	1	3.0%	1
Dissatisfied	5.3%	1	3.0%	1
Very Dissatisfied	0.0%	0	0.0%	0

Table 16 shows the most important reasons identified by EHR users for using an EHR. The benefits entities identified most frequently relate to greater efficiency, quality monitoring, improved safety, communication, and coordination.

Table 16. EHR Rationale

	Entity Response Rate	Entity Response Count (n=19)	Facility Response Rate	Facility Response Count (n=33)
Greater efficiency	78.9%	15	87.9%	29
Quality monitoring	68.4%	13	78.8%	26
Improved resident care management	68.4%	13	48.5%	16
Decreased errors	52.6%	10	72.7%	24
Improved care planning	52.6%	10	66.7%	22
Improved reporting capabilities	47.4%	9	63.6%	21
Improved communication within facility	42.1%	8	63.6%	21
Staff empowerment and satisfaction	31.6%	6	24.2%	8
Improved oversight of staff	26.3%	5	48.5%	16
Resident safety	21.1%	4	45.5%	15
Data exchange with other providers or facilities	21.1%	4	45.5%	15
Reduced storage	21.1%	4	12.1%	4
Increased resident and family satisfaction	21.1%	4	12.1%	4
Billing accuracy and efficiency	10.5%	2	39.4%	13
Cost savings	0.0%	0	0.0%	0
Other (1)	5.3%	1	3.0%	1

(1) "Other" response: "All of the above."

Table 17 highlights which EHR functions are in use by entities and facilities with an EHR. Entering care plans electronically is the function utilized by the most EHR users, followed by entering and reviewing orders and basic EHR functions, like clinical notes.

Table 17. EHR Functions (Users)

	Entity Response Rate	Entity Response Count (n=19)	Facility Response Rate	Facility Response Count (n=33)
Enter care plans electronically	89.5%	17	93.9%	31
Enter and review orders	78.9%	15	51.5%	17
Basic functions (i.e., patient/resident notes)	73.7%	14	84.8%	28
Track medications electronically	57.9%	11	39.4%	13
Update and review lists	52.6%	10	39.4%	13
Track behavior electronically	42.1%	8	27.3%	9
Claims and billing support	36.8%	7	57.6%	19
Scan & store paper records	36.8%	7	21.2%	7
Electronically place orders	21.1%	4	18.2%	6
Electronic Prescribing (E-Prescribing)	10.5%	2	6.1%	2
Other	0.0%	0	0.0%	0

Table 18 shows which clinical decision support tools are provided by respondents' EHR systems. While prompts to order tests, studies, or other services was identified by over 75% of EHR non-users as a desired decision support capability (see table 12), it is currently provided by less than 30% of EHR systems in use.

Table 18. EHR Clinical Decision Support Tools (Users)

	Entity Response Rate	Entity Response Count (n=15)	Facility Response Rate	Facility Response Count (n=29)
Follow-up notifications	73.3%	11	48.3%	14
Warnings of drug interactions and side effects	46.7%	7	62.1%	18
Highlighting out of range lab levels	46.7%	7	62.1%	18
Reminders for guideline-based interventions and screenings	46.7%	7	34.5%	10
Prompts to order tests, studies, or other services	26.7%	4	13.8%	4
Other (1)	6.7%	1	3.4%	1

(1) "Other" response: "Unsure of what CDS tools EHR offers as we are not using it to its potential."

Table 19 shows the main barriers to implementing an EHR, as indicated by entities and facilities with EHR systems. Even though some of these entities and facilities implemented EHRs over four years ago, they faced the same major barriers as identified by non-EHR-users: the cost of purchase and implementation, and the requirement of staff training.

Table 19. Barriers to EHR Implementation (Users)

	Entity Response Rate	Entity Response Count (n=13)	Facility Response Rate	Facility Response Count (n=27)
Expense of purchase	76.9%	10	88.9%	24
Expense of implementation	76.9%	10	88.9%	24
Staff would require training	61.5%	8	70.4%	19
Lack of expertise to lead or organize the project	23.1%	3	11.1%	3
Inadequate return on investment	15.4%	2	7.4%	2
Security and privacy issues	7.7%	1	11.1%	3
EHR products current available do not satisfy our needs	7.7%	1	3.7%	1
Concern that product will fail	7.7%	1	3.7%	1
Staff is satisfied with paper-based records	7.7%	1	3.7%	1
Too many EHR products to choose from	0.0%	0	0.0%	0
Loss of productivity	0.0%	0	0.0%	0
Community is too small	0.0%	0	0.0%	0
Other (1)	7.7%	1	3.7%	1

(1) For responses for "Other" see Appendix A Table A7.

Exchange

Tables 20a and 20b highlight how entities and facilities, respectively, exchange patient and resident health information with various entities in the healthcare community. Fax and electronic fax are the most prominent methods of exchanging patient information with hospitals, providers, labs, and pharmacies, and information is most commonly exchanged with patients and their family members by phone.

Table 20a. Methods for Exchanging Patient/Resident Health Information (Entities) (1)

	Phone	Fax or electronic fax	Web-based application	EHR	Other (2)	Count
Hospitals	82.0%	96.7%	9.8%	1.6%	0.0%	61
Labs	70.0%	98.3%	1.7%	0.0%	0.0%	60
Pharmacies	75.4%	98.4%	11.5%	8.2%	0.0%	61
Specialists	84.2%	98.2%	1.8%	3.5%	0.0%	57
Affiliated providers	84.3%	90.2%	7.8%	9.8%	0.0%	51
Non-affiliated providers	83.7%	91.8%	2.0%	0.0%	2.0%	49
Patients/residents	87.0%	35.2%	1.9%	3.7%	14.8%	54
Family members	98.3%	28.3%	10.0%	3.3%	10.0%	60

(1) For full response counts see Appendix A Table A2-1.
(2) "Other" responses: "E-mail," "Face-to-face interactions," and "Snail mail."

Table 20b. Methods for Exchanging Patient/Resident Health Information (Facilities) (1)

	Phone	Fax or electronic fax	Web-based application	EHR	Other (2)	Count
Hospitals	68.4%	88.6%	19.3%	0.9%	0.0%	114
Labs	61.9%	99.1%	0.9%	0.0%	0.0%	113
Pharmacies	64.9%	99.1%	7.9%	7.0%	0.0%	114
Specialists	79.1%	99.1%	0.9%	1.8%	0.0%	110
Affiliated providers	88.8%	75.3%	10.1%	5.6%	0.0%	89
Non-affiliated providers	88.4%	81.4%	7.0%	0.0%	1.2%	86
Patients/residents	92.2%	39.2%	1.0%	2.0%	8.8%	102
Family members	99.1%	38.9%	15.9%	1.8%	7.1%	113

(1) For full response counts see Appendix A Table A2-2.
(2) "Other" responses: "E-mail," "Face-to-face interactions," and "Snail mail."

Tables 21a and 21b show the level of interest of entities and facilities, respectively, in expanding electronic information exchange with various entities in the healthcare community. The greatest interest is associated with exchanging information with labs, pharmacies, and hospitals, with over 93% of entities and facilities indicating they are "very interested," or "interested."

Table 21a. Interest in Expanding Electronic Information Sharing (Entities) (1)

	Very Interested	Interested	Not Interested	Count
Hospitals	60.0%	33.3%	6.7%	60
Labs	67.2%	29.3%	3.4%	58
Pharmacies	65.0%	31.7%	3.3%	60
Specialists	51.8%	41.1%	7.1%	56
Affiliated providers	52.9%	39.2%	7.8%	51
Non-affiliated providers	40.0%	44.0%	16.0%	50
Patients/residents (e.g., patient portal or personal health record)	49.1%	36.4%	14.5%	55
Family members	42.9%	42.9%	14.3%	56

(1) For full response counts see Appendix A Table A3-1.

Table 21b. Interest in Expanding Electronic Information Sharing (Facilities) (1)

	Very Interested	Interested	Not Interested	Count
Hospitals	73.5%	23.0%	3.5%	113
Labs	76.6%	21.6%	1.8%	111
Pharmacies	75.2%	23.0%	1.8%	113
Specialists	43.1%	53.2%	3.7%	109
Affiliated providers	53.8%	27.9%	18.3%	104
Non-affiliated providers	48.0%	29.4%	22.5%	102
Patients/residents (e.g., patient portal or personal health record)	41.7%	50.0%	8.3%	108
Family members	37.6%	54.1%	8.3%	109

(1) For full response counts see Appendix A Table A3-2.

Tables 22a and 22b show whom entities and facilities, respectively, currently exchange different types of information with electronically.

Table 22a. Current Electronic Information Sharing (Entities) (1)

	Within site	Within organization	With non-affiliated providers	No electronic exchange	Count
Clinical notes	34.0%	20.8%	1.9%	56.6%	53
Physician orders	28.3%	20.8%	5.7%	60.4%	53
Medication administration record (MAR)	24.1%	18.5%	5.6%	61.1%	54
Treatment administration record (TAR)	24.1%	14.8%	3.7%	66.7%	54
Medication order	25.9%	20.4%	7.4%	61.1%	54
Regulatory assessments	22.2%	31.5%	5.6%	53.7%	54
Care-service plan	29.1%	34.5%	5.5%	45.5%	55
Care-service plan summary report	29.6%	33.3%	5.6%	46.3%	54
Discharge/transfer report	28.8%	21.2%	3.8%	57.7%	52
Consult report	27.1%	16.7%	4.2%	64.6%	48
Advance directives	25.5%	11.8%	3.9%	66.7%	51
Physicians Orders for Life-Sustaining Treatment (POLST)	26.9%	15.4%	5.8%	63.5%	52
Lab orders and results	25.5%	19.6%	5.9%	60.8%	51
Radiology orders and results	26.0%	18.0%	6.0%	64.0%	50
Diagnostic test orders and results	25.5%	15.7%	5.9%	64.7%	51

(1) For full response counts see Appendix A Table A4-1.

Table 22b. Current Electronic Information Sharing (Facilities) (1)

	Within site	Within organization	With non-affiliated providers	No electronic exchange	Count
Clinical notes	53.8%	22.6%	0.9%	39.6%	106
Physician orders	38.7%	12.3%	2.8%	53.8%	106
Medication administration record (MAR)	26.2%	9.3%	4.7%	64.5%	107
Treatment administration record (TAR)	26.2%	7.5%	1.9%	69.2%	107
Medication order	27.1%	12.1%	5.6%	64.5%	107
Regulatory assessments	35.5%	28.0%	2.8%	50.5%	107
Care-service plan	50.0%	30.6%	2.8%	34.3%	108
Care-service plan summary report	50.5%	29.9%	2.8%	34.6%	107
Discharge/transfer report	39.0%	21.0%	1.9%	54.3%	105
Consult report	38.6%	18.8%	2.0%	57.4%	101
Advance directives	38.5%	5.8%	1.9%	57.7%	104

	Within site	Within organization	With non-affiliated providers	No electronic exchange	Count
Physicians Orders for Life-Sustaining Treatment (POLST)	39.0%	7.6%	2.9%	56.2%	105
Lab orders and results	38.5%	9.6%	2.9%	54.8%	104
Radiology orders and results	49.5%	19.4%	2.9%	45.6%	103
Diagnostic test orders and results	38.5%	7.7%	2.9%	56.7%	104

(1) For full response counts see Appendix A Table A4-2.

Table 23 indicates the interest level of representatives from entities and facilities to participate in planning and strategizing technology related initiatives for the long term care community.

Table 23. Interest in Participating in Planning/Strategizing Technology Related Initiatives for LTC Community

	Entity Response Rate	Entity Response Count (n=54)	Facility Response Rate	Facility Response Count (n=101)
Interested	27.8%	15	35.6%	36
Not interested	72.2%	39	64.4%	65

Limitations

There are a number of limitations to the 2011 Long Term Care Survey and this analysis.

Small Sample Size: While the survey responses cover 116 facilities with a total of 7,933 patients/residents, there are 2,274 licensed long-term care facilities in Oregon. Because the sample size only covers a small portion of facilities in the state, the results may not be an accurate representation of the overall long-term care environment.

Low Response Rates Among Entities and Facilities: The survey was sent to approximately 600 long-term care facilities, and received responses from 63 organizations, or entities, covering 116 facilities. Considering the relatively low response rates for entities and facilities, approximately 10% and 20% respectively, the results may not accurately characterize the entire spectrum of the long-term care community. In particular it is possible that HIT and EHR adoption rates and utilization characteristics could be quite different between survey respondents and non-responding facilities and entities.

Possible Misrepresentation of EHR Adoption: While the survey identified that 30.2% of entities and 28.4% of facilities have an EHR system in use, it is possible that a segment of the facilities that didn't respond may be less interested in and/or informed about HIT, and thus less likely to have an EHR.

APPENDIX A: Additional Response Information

Response Counts: Tables A1-1 through A4-2 provide response counts for tables in the report where only rates were displayed. Corresponding tables in the report are shown in parentheses.

Table A1-1. Functions (Entities) – Response Counts (Table 6a)

	NO EHR					WITH EHR				
	Paper	EHR (1)	Point-of-care	Other Technology (2)	Count	Paper	EHR	Point-of-care	Other Technology (2)	Count
Clinical notes	43	2	0	2	43	7	13	3	0	19
Physician orders	41	0	0	2	42	6	15	2	0	19
Medication administration record (MAR)	41	1	0	3	43	6	13	2	0	17
Treatment administration record (TAR)	37	0	0	3	39	7	14	2	0	18
Medication order	41	0	0	3	43	6	13	0	0	18
Regulatory assessments	33	5	1	7	43	3	15	1	0	17
Care-service plan	28	7	2	10	43	1	18	0	0	19
Care-service plan summary report	24	7	2	9	41	2	17	0	0	19
Discharge/transfer report	38	1	1	4	41	6	13	0	0	19
Consult report	38	0	1	2	39	8	8	0	2	18
Advance directives	42	0	0	1	43	14	6	0	0	18
Physicians Orders for Life-Sustaining Treatment (POLST)	43	1	0	0	43	15	7	0	1	18
Lab orders and results	39	0	0	2	41	14	11	0	0	19
Radiology orders and results	38	0	0	0	38	12	12	0	0	19
Diagnostic test orders and results	37	0	0	0	37	12	12	0	0	19

(1) Some respondents that previously indicated that they did not use an EHR responded here that they did use an EHR for recording certain information. This may indicate a lack of understanding of the definition of an EHR system (e.g., the difference between an EHR and other administrative support systems).

Table A1-2. Functions (Facilities) – Response Counts (Table 6b)

	NO EHR					WITH EHR				
	Paper	**EHR** (1)	**Point-of-care**	**Other Technology**	**Count**	**Paper**	**EHR**	**Point-of-care**	**Other Technology**	**Count**
Clinical notes	82	29	0	3	82	7	13	3	0	33
Physician orders	80	0	0	2	81	6	15	2	0	33
Medication administration record (MAR)	80	13	0	3	82	6	13	2	0	31
Treatment administration record (TAR)	64	0	0	3	66	7	14	2	0	32
Medication order	80	0	0	3	82	6	13	0	0	31
Regulatory assessments	72	20	1	7	82	3	15	1	0	31
Care-service plan	53	35	2	11	82	1	18	0	0	33
Care-service plan summary report	44	35	2	15	80	2	17	0	0	33
Discharge/transfer report	77	16	1	9	80	6	13	0	0	33
Consult report	77	0	1	2	78	8	8	0	2	32
Advance directives	81	0	0	1	82	14	6	0	0	32
Physicians Orders for Life-Sustaining Treatment (POLST)	82	2	0	0	82	15	7	0	1	32
Lab orders and results	65	0	0	3	68	14	11	0	0	33
Radiology orders and results	65	0	0	0	65	12	12	0	0	33
Diagnostic test orders and results	64	0	0	0	64	12	12	0	0	33

(1) Some respondents that previously indicated that they did not use an EHR responded here that they did use an EHR for recording certain information. This may indicate a lack of understanding of the definition of an EHR system (e.g., the difference between an EHR and other administrative support systems).

Table A2-1. Methods for Exchange Patient/Resident Health Information (Entities) – Response Counts (Table 20a)

	Phone	Fax or electronic fax	Web-based application	EHR	Other	Count
Hospitals	50	59	6	1	0	61
Labs	42	59	1	0	0	60
Pharmacies	46	60	7	5	0	61
Specialists	48	56	1	2	0	57
Affiliated providers	43	46	4	5	0	51
Non-affiliated providers	41	45	1	0	1	49
Patients/residents	47	19	1	2	8	54
Family members	59	17	6	2	6	60

Table A2-2. Methods for Exchanging Patient/Resident Health Information (Facilities) – Response Counts (Table 20b)

	Phone	Fax or electronic fax	Web-based application	EHR	Other	Count
Hospitals	78	101	22	1	0	114
Labs	70	112	1	0	0	113
Pharmacies	74	113	9	8	0	114
Specialists	87	109	1	2	0	110
Affiliated providers	79	67	9	5	0	89
Non-affiliated providers	76	70	6	0	1	86
Patients/residents	94	40	1	2	9	102
Family members	112	44	18	2	8	113

Table A3-1. Interest in Expanding Electronic Information Sharing (Entities) – Response Counts (Table 21a)

	Very Interested	Interested	Not Interested	Count
Hospitals	36	20	4	60
Labs	39	17	2	58
Pharmacies	39	19	2	60
Specialists	29	23	4	56
Affiliated providers	27	20	4	51
Non-affiliated providers	20	22	8	50
Patients/residents (e.g., patient portal or personal health record)	27	20	8	55
Family members	24	24	8	56

Table A3-2. Interest in Expanding Electronic Information Sharing (Facilities) – Response Counts (Table 21b)

	Very Interested	Interested	Not Interested	Count
Hospitals	83	26	4	113
Labs	85	24	2	111
Pharmacies	85	26	2	113
Specialists	47	58	4	109
Affiliated providers	56	29	19	104
Non-affiliated providers	49	30	23	102
Patients/residents (e.g., patient portal or personal health record)	45	54	9	108
Family members	41	59	9	109

Table A4-1. Current Electronic Information Sharing (Entities) – Response Counts (Table 22a)

	Within site	Within organization	With non-affiliated providers	No electronic exchange	Count
Clinical notes	18	11	1	30	53
Physician orders	15	11	3	32	53
Medication administration record (MAR)	13	10	3	33	54
Treatment administration record (TAR)	13	8	2	36	54
Medication order	14	11	4	33	54
Regulatory assessments	12	17	3	29	54
Care-service plan	16	19	3	25	55
Care-service plan summary report	16	18	3	25	54
Discharge/transfer report	15	11	2	30	52
Consult report	13	8	2	31	48
Advance directives	13	6	2	34	51
Physicians Orders for Life-Sustaining Treatment (POLST)	14	8	3	33	52
Lab orders and results	13	10	3	31	51
Radiology orders and results	13	9	3	32	50
Diagnostic test orders and results	13	8	3	33	51

Table A4-2. Current Electronic Information Sharing (Facilities) – Response Counts (Table 22b)

	Within site	Within organization	With non-affiliated providers	No electronic exchange	Count
Clinical notes	57	24	1	42	106
Physician orders	41	13	3	57	106
Medication administration record (MAR)	28	10	5	69	107
Treatment administration record (TAR)	28	8	2	74	107
Medication order	29	13	6	69	107
Regulatory assessments	38	30	3	54	107
Care-service plan	54	33	3	37	108
Care-service plan summary report	54	32	3	37	107
Discharge/transfer report	41	22	2	57	105
Consult report	39	19	2	58	101
Advance directives	40	6	2	60	104
Physicians Orders for Life-Sustaining Treatment (POLST)	41	8	3	59	105
Lab orders and results	40	10	3	57	104
Radiology orders and results	51	20	3	47	103
Diagnostic test orders and results	40	8	3	59	104

Responses for "Other": Tables A5-A7 provided selected "Other" responses that are not given in the report. Corresponding tables in the report are shown in parentheses.

Table A5. Functions – Responses for "Other Technology" (Tables 6a-b)

	NO EHR				WITH EHR			
	Entity Rate	Entity Count (n=15)	Facility Rate	Facility Count (n=22)	Entity Rate	Entity Count (n=3)	Facility Rate	Facility Count (n=4)
MS-Office	33.3%	5	27.3%	6	0.0%	0	0.0%	0
Vigilan Software	26.7%	4	22.7%	5	33.3%	1	50.0%	2
Other Computer/Software programs	20.0%	3	13.6%	3	0.0%	0	0.0%	0
Access data base developed in-house	6.7%	1	27.3%	6	0.0%	0	0.0%	0
Community specific technology	6.7%	1	4.5%	1	33.3%	1	25.0%	1
Daverchi	6.7%	1	4.5%	1	0.0%	0	0.0%	0
HCS Interactant	6.7%	1	4.5%	1	0.0%	0	0.0%	0
MDI Achieve Matrix	6.7%	1	4.5%	1	0.0%	0	0.0%	0
Point Click Care	6.7%	1	4.5%	1	0.0%	0	0.0%	0
Quickmar eMar	6.7%	1	4.5%	1	0.0%	0	0.0%	0
E-mail	0.0%	0	0.0%	0	66.7%	2	50.0%	2

Table A6. EHR Functions (Non-Users) – Responses for "Other" (Table 11)

	Entity Response Rate	Entity Response Count (n=2)	Facility Response Rate	Facility Response Count (n=3)
Social worker, occupational therapy, and nursing notes in one place	50.0%	1	50.0%	2
Care services provided	50.0%	1	33.3%	1

Table A7. Barriers to Implementation of EHR – Responses for "Other" (Tables 13, 19)

	NO EHR				WITH EHR			
	Entity Rate	Entity Count (n=3)	Facility Rate	Facility Count (n=4)	Entity Rate	Entity Count (n=1)	Facility Rate	Facility Count (n=1)
Small non-profit=lack of funding for IS projects	33.3%	1	50.0%	2	0.0%	0	0.0%	0
EHR/HIT related decisions made by our National Campus	33.3%	1	25.0%	1	0.0%	0	0.0%	0
Other IS project taking up time/resources	33.3%	1	25.0%	1	0.0%	0	0.0%	0
Staff Resistance	0.0%	0	0.0%	0	100.0%	1	100.0%	1

Additional Information: Tables A8 through A9-2 provide additional information on survey questions/responses not included in the overview report.

Respondents were asked to list software and technology products that they use for patient/resident care (see Appendix B, questions 7 and 17). Table A8 shows the response data for this open-ended question.

Table A8. Software/Technology Other Than EHR

	NO EHR				WITH EHR			
	Entity Rate	Entity Count (n=22)	Facility Rate	Facility Count (n=40)	Entity Rate	Entity Count (n=5)	Facility Rate	Facility Count (n=17)
Vigilan Software	22.7%	5	15.0%	6	40.0%	2	17.6%	3
None	13.6%	3	7.5%	3	0.0%	0	0.0%	0
Quickmar eMAR	9.1%	2	35.0%	14	0.0%	0	0.0%	0
Continuex Co-worker	9.1%	2	17.5%	7	20.0%	1	5.9%	1
In-house technology	9.1%	2	7.5%	3	20.0%	1	5.9%	1
MDI Achieve Pathlinks	9.1%	2	5.0%	2	0.0%	0	0.0%	0
Eldermark	4.5%	1	32.5%	13	0.0%	0	0.0%	0
Agresso	4.5%	1	2.5%	1	0.0%	0	0.0%	0
Allscripts for Home Health	4.5%	1	2.5%	1	0.0%	0	0.0%	0
Connects	4.5%	1	2.5%	1	0.0%	0	0.0%	0
Daverchi	4.5%	1	2.5%	1	0.0%	0	0.0%	0
HCS Interactant	4.5%	1	2.5%	1	0.0%	0	0.0%	0
Health Medics	4.5%	1	2.5%	1	0.0%	0	0.0%	0
Matrix	4.5%	1	2.5%	1	0.0%	0	0.0%	0
MDI	4.5%	1	2.5%	1	0.0%	0	0.0%	0
MS-Office	4.5%	1	2.5%	1	0.0%	0	0.0%	0
Point Click Care	4.5%	1	2.5%	1	0.0%	0	0.0%	0
Vista Keane	4.5%	1	2.5%	1	0.0%	0	0.0%	0
We Care	4.5%	1	2.5%	1	0.0%	0	0.0%	0
Casamba	0.0%	0	0.0%	0	20.0%	1	70.6%	12
Allscripts	0.0%	0	0.0%	0	20.0%	1	5.9%	1
BEST Call Light System	0.0%	0	0.0%	0	20.0%	1	5.9%	1

Tables A9-1 and A9-2 show the types of EHR systems in use by responding entities and facilities.

Table A9-1. EHR Systems in Use

	Entity Response Rate	Entity Response Count (n=18)	Facility Response Rate	Facility Response Count (n=32)
Point Click Care	33.3%	6	18.8%	6
Ingenix CareTracker	0.0%	0	0.0%	0
Point of Care Solutions by Point of Care Solutions	0.0%	0	0.0%	0
Accumed by Accumedic Computer Systems	0.0%	0	0.0%	0
Centricity by GE Healthcare	0.0%	0	0.0%	0
iAchieve EHR by ChartLogic	0.0%	0	0.0%	0
Other	66.7%	12	81.3%	26

Table A9-2. EHR Systems in Use – Responses for "Other"

	Entity Response Rate	Entity Response Count (n=12)	Facility Response Rate	Facility Response Count (n=26)
MDI Achieve Matrix	41.7%	5	19.2%	5
Eldermark	25.0%	3	23.1%	6
American Health Tech	8.3%	1	46.2%	12
Health MedEx	8.3%	1	3.8%	1
MDI Achieve Quickcare	8.3%	1	3.8%	1
Vigilan	8.3%	1	3.8%	1