Comparative Health System Performance Initiative: Compendium of U.S. Health Systems, 2016, Technical Documentation

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Appendix E. Insurance Product Data and Methods

Introduction

This appendix describes the data and methods used to construct the variables indicating whether a health system offered any insurance product and whether a health system offered a Medicare Advantage (MA) plan.

System Offers Any Insurance Product

We used the 2015 American Hospital Association (AHA) Annual Survey Database to construct the measure of whether a system offered any insurance product. As described in Chapter II, AHA data are based on an annual survey of hospitals in the United States. The AHA Annual Survey Database provides facility-level data about organizational structure, services, staffing, expenses, system affiliations, and physician arrangements.

We used responses to the following AHA survey question: "Does your hospital, health system or health network have equity interest in any of the following products?" The types of insurance products that a respondent can report are health maintenance organization (HMO), preferred provider organization (PPO), and indemnity fee-for-service plan.

The survey asked whether the hospital or health system had an equity interest in each of those products or a joint venture with an insurer. For example, a hospital could reply that it had an HMO product, and it could reply that its health system had a PPO product.

We constructed a system-level variable equal to one if at least one non-Federal general acute care hospital within the system reported having HMO, PPO, or indemnity fee-for-service activity within their own hospital, within their system, or as a joint venture with an insurer. For example, a system could have been identified as offering an insurance product because one of its hospitals offered an HMO plan, and another system could have been identified as offering an insurance product because one of its hospitals reported that its system had an HMO joint venture with an insurer.

The variable indicating whether a system offered any insurance product represents the broadest possible measure of activity as an insurer based on AHA data, and it produced three mutually exclusive groups:

- Systems that offered any insurance product; that is, at least one hospital in the system reported an insurance product at the hospital or system level or a joint venture with an insurer.

- Systems that had missing data on insurance products for all hospitals; either all of their hospitals that responded to the survey had missing data on insurance products, or their hospitals did not respond to the AHA survey.

- Systems that had at least one hospital with nonmissing data on insurance products and zero hospitals that reported an insurance product at the hospital or system level or a joint venture with an insurer.

System Offers Medicare Advantage Plan

We sought to determine which health systems offered an MA plan, which we defined as equity interest in an MA plan or offering an MA plan through a joint venture with another organization, such as an insurer. The 2015 AHA survey did not identify the type of insurance products a hospital or its system offered, such as MA, Medicaid, or commercial. Thus, we used the publicly available January 2016 MA Plan Directory from the Centers for Medicare & Medicaid Services (CMS) website to construct the measure of whether the system offered an MA plan. The MA Plan Directory lists MA, cost, Program of All-inclusive Care for the Elderly (PACE), and demonstration plans.

To construct a variable indicating whether a system offered an MA plan, we began by identifying MA plans owned by a provider organization, such as a health system, hospital, or medical group. Then, we matched the MA Plan Directory to the Compendium's consolidated list of U.S. health systems, referred to in this appendix as "the list." In doing so, we identified systems that offered an MA plan and the MA contracts associated with each system.

Step 1: Identifying Which Medicare Advantage Plans Were Owned by a Provider Organization

Before matching MA data to the list, we added a variable to the MA data that indicated whether the MA plan was owned by a provider organization. Johnson, et al. (2017) identified MA plans that operated between 2011 and 2015 and were owned by a provider organization, such as a health system, hospital, or medical group.[i] We obtained the contract-level data from the authors and matched those data to the January 2016 MA Plan Directory using contract number.

Of the 687 MA plans in the January 2016 MA Plan Directory, we had data on ownership by a provider organization for 434 MA plans. We were missing data on ownership by a provider organization for 253 MA plans that were not examined by Johnson, et al. (2017), because the plan did not operate from 2011 to 2015 or the plan was not a local coordinated care plan such as an HMO or PPO.[ii]

As we discuss in the next section, we used the measure of provider ownership when we matched CMS data to health systems in the list.

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[i] Johnson G, Lyon Z, Frakt A. Provider-offered Medicare Advantage plans: recent growth and care quality. Health Aff 2017;36(3):539-47.

[ii] Johnson, et al. (2017) measured provider ownership only for local coordinated care plans. In our work, we used all plans in the MA Plan Directory, including local coordinated care plans, section 1876 cost contracts, section 1833 health care prepayment plans, demonstration plans, PACE plans, regional coordinated care plans, and private fee-for-service plans. More information about MA organizations and other Medicare managed health plans is at https://www.cms.gov/Medicare/Health-Plans/HealthPlansGenInfo/index.html.

Step 2: Matching the Medicare Advantage Plan Directory to the Compendium's List of U.S. Health Systems

Data Preparation

To match MA plan parent organization and address to health system name and address, we first processed names and addresses using the following steps:

- Removed all punctuation,

- Converted all text to uppercase,

- Removed multiple spaces in a row,

- Removed "the," "and," and "of" from names,

- Removed "inc," "corp," "corporation," and "company" from names,

- Removed terms such as "c/o" from addresses, and

- Normalized common terms (i.e., system = systems, health care = healthcare, N = north).

Next, we deduplicated the MA data using the variables we later used for matching: parent organization, street, city, and ZIP Code.

For each unique MA parent organization and address, we set the provider ownership variable equal to one if Johnson, et al. (2017) identified any of the individual plans with that MA parent organization and address as being owned by a provider organization. Otherwise, if at least one individual plan with a given MA parent organization and address was identified by Johnson, et al. (2017) as not being owned by a provider organization, we set the provider ownership variable to zero. Finally, if data on provider ownership was missing for all individual MA plans within an MA parent organization and address, we set the provider ownership variable to missing.

Automated Matching

We identified possible matches between the list of health systems and the MA data. We used a combination of name and address matching, via character-string matching and distance-based matching using geocoding, respectively. Since an MA parent organization may match a subsystem of one of the 626 systems on the list, we used an expanded set of systems that included the 626 systems in the list and subsystems of those systems.

Using the approach described in Chapter III, we used the SAS COMPGED function to compare the similarity of health system name and MA parent organization name, and we used geocoding to determine the linear distance between health system address and the MA legal entity's address. As we discussed previously, SAS COMPGED generates a score that reflects the number of deletions, insertions, or replacements needed to make two strings match—the lower the score, the better the match. If a string matches exactly, the SAS COMPGED score is zero. Inserting one character to derive a match results in a score of 100. Adding a punctuation character results in a score of 30.

If the SAS COMPGED score was ≤150 and the geocoded addresses were within 1 mile of each other, then we considered the health system and the MA record to be an exact match. We

identified 15 automated matches. We created a variable "System offers a MA plan" and set it equal to one for each of those 15 matches.

Manual Review of Possible Matches Based on Name, Location, or Name and Location

We used the SAS COMPGED scores and distances between systems to identify additional possible matches for manual review. We manually reviewed possible matches of health systems and MA parent organizations in the following seven categories, where the first category includes the most likely matches:

1. Possible match with a SAS COMPGED score >150 and ≤500 and within 1 mile of each other

2. Possible match with a SAS COMPGED score ≤150 and matching city and State

3. Possible match with a SAS COMPGED score >150 and ≤500 and matching city and State

4. Possible match with a SAS COMPGED score ≤150 on truncated names (to increase the likelihood of a match based on the beginning portion of the name) and matching State

5. Possible match with a SAS COMPGED score ≤150 on truncated names

6. Possible match within 0.5 miles of each other

7. Possible match within 10 miles of each other

For all seven categories of possible matches, we compared the full system name to the full MA parent organization name and compared address information for the system and the MA record. Relative to the first two categories of possible matches, we were less confident in the possible matches in categories three through seven, because their names or addresses were slightly less similar. Therefore, we conducted web searches for possible matches in categories three through seven that Johnson, et al. (2017) identified as being owned by a provider organization or had missing data on whether it was owned by a provider organization. We did not attempt to confirm possible matches that Johnson, et al. (2017) identified as not owned by a provider organization.

When web searching, we looked not only for name and address information but also for information about the health system's or MA parent organization's locations, breadth of the health system's services, and evidence of mergers or acquisitions. Our goal was to confirm that the health system had equity interest in the MA plan or that the MA plan itself was a joint venture between the health system and another organization such as an insurer.

The most useful approach to access this information was to select the "About" or "History" link on the website of the health system, MA parent organization, or MA plan owned by the MA parent organization. We also found corroborating evidence elsewhere, such as Modern Healthcare, news releases on the health system website, and the "About" or "History" link on the website of the MA plan. Table E.1 provides examples of possible matches that we determined to be valid based on manual review.

Table E.1. Examples of manually matched health systems and MA records

Health System or Subsystem Name	MA Parent Organization Name	Distance	SAS COMPGED Score for Full Name (Truncated Name)
Mission Health System	Mission Health	6.3 miles	310 (0)
Marshfield Clinic	Marshfield Clinic Health System, Inc	0.5 miles	510 (0)
Sutter Health	Sutter Health Sacramento Sierra Region	9.4 miles	501 (0)
Catholic Health Initiatives	Catholic Health Initiatives	480 miles	0 (0)
Lourdes Health System	Trinity Health	2.8 miles	501 (501)

Source: 2016 Compendium of U.S. Health Systems and CMS MA Plan Directory, January 2016.

Note: We conducted web searches of each manual match. We used the SAS COMPGED function to compare the similarity of health system name and MA parent organization name.

In eight cases, we used data from the 2016 AIS Directory of Health Plans Snapshot to improve our match between health systems and MA organizations. Specifically, we conducted web searches based on AIS data, and those searches suggested that a particular health system should be matched to a particular CMS record, even though that system and the CMS record had not been selected as a possible match.

After matching using MA parent organization name, we repeated matching using MA organization marketing name and address. That process identified a small number of possible matches that required manual review.

In our primary approach to matching, we selected only one MA record per health system as a possible match. To determine whether that approach prevented us from identifying other matches we should identify, we used an alternative approach to matching in which we allowed each health system to be matched to multiple MA records based on name and address. The alternative approach did not change the final list of health systems that offered an MA plan. The only cases in which a health system was matched to multiple MA records were cases in which the system was matched to two or more records that had the same MA parent organization but different addresses.

Tables E.2 and E.3 at the end of this appendix report the health systems and subsystems that we matched to MA records. These tables include all automated matches and all manual matches that we confirmed through web searches.

Step 3: Constructing Variables for Medicare Advantage Plans and Medicare Advantage Contract Numbers

We created a variable called "System offers a Medicare Advantage plan," which indicates whether a system offered an MA plan. We set the MA plan variable equal to one for the 15 systems that had automated matches. In addition, we set the MA plan variable equal to one for cases in which we confirmed a possible match of an MA plan to the system or one of its

subsystems. Finally, we set the MA plan variable to zero for systems that did not match MA data.[iii]

In addition, we constructed a variable that included all contract numbers for the CMS parent organization that was matched to a given health system and its subsystems (if applicable). By including contract numbers for the CMS parent organization, a user can link the list to the MA Plan Directory to obtain information about the MA plans such as the organization type, plan type, and enrollment.

Caveats and Limitations

Missing Data

Our analyses suggested that missing AHA data on insurance products was not a major problem for most systems on the list. Among the 626 systems on the list, only 4 percent (26 systems) had no reported information on insurance products for any of the system's non-Federal general acute care hospitals. We examined the percentage of non-Federal general acute care hospitals within a system that were missing insurance product data from the AHA:

- Among the 367 systems that we classified as not having an insurance product, 74 percent (272 systems) were not missing data for any non-Federal general acute care hospitals. Another 12 percent (43 systems) were missing data for at least one hospital but fewer than half of all hospitals in the system. The remaining 14 percent (52 systems) were missing data for more than half of all hospitals in the system. It is possible that some of the 95 systems that were missing data for at least one hospital actually offered an insurance product, even though the AHA survey responses for their hospitals did not indicate that the system offered an insurance product.

- Among the 233 systems that we classified as offering an insurance product, 51 percent (118 systems) were not missing data for any non-Federal general acute care hospitals. Another 41 percent (95 systems) were missing data for at least one hospital but fewer than half of all hospitals in the system. The remaining 8 percent (20 systems) were missing data for at least half of all hospitals in the system. However, since we classified a system as offering an insurance product if at least one hospital in the system reported an insurance product at the hospital or system level or a joint venture with insurers, these missing data do not affect the insurance product variable.

Potential Misalignment of Health System Definitions

As discussed in Chapter II, the AHA definition of a health system has similarities and differences from the Compendium's working definition of a health system. The AHA definition includes purchasing or contracting affiliations. If a hospital reported an insurance product owned by another hospital in a purchasing affiliation and that other hospital was not owned by the system

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[iii] A system that offers an MA plan may not offer that plan in all locations where the system offers health care services. Similarly, the MA plan could be available to beneficiaries who live in locations where the system does not offer health care services.

according to the Compendium, then we may have misidentified the system as having an insurance product. We do not think this type of misidentification was common.

Among the 233 systems that we classified as having an insurance product, 142 systems had at least half of their non-Federal general acute care hospitals report an insurance product. In other words, for most systems (61 percent) that had an insurance product, at least half of the non-Federal general acute care hospitals within that system reported an insurance product at the hospital level or system level, or as a joint venture with insurers.

Further, more than half (54 percent) of the 233 systems that we classified as having an insurance product had at least one hospital that reported that the hospital itself had an insurance product. These data suggest that it is unlikely that we incorrectly identified a system as having any insurance product because of misalignment of health system definitions between the AHA and the Compendium.

Measurement Errors in American Hospital Association Survey Responses

AHA data are derived from a cross-sectional survey of more than 6,400 hospitals operating in the United States. Respondents self-report the characteristics and attributes of their hospital, including information on insurance products in which their hospital or system has equity interest or offers a product through a joint venture with insurers. As with all self-reported data, the accuracy of the measure depends on the knowledge of the informant, the salience of the task to the informant, and the meaning the informant ascribes to key terms such as joint venture, system, and equity interest.

Accuracy of Verifying Ownership of a Medicare Advantage Plan

It can be difficult to determine the exact nature of the relationships between an MA parent organization or MA plan and a health system. In particular, it is challenging to determine precisely whether a health system has an equity interest in the MA plan. If inaccuracies exist in the identification of systems offering insurance products, the most likely reason is that we could not confirm that a health system should be matched to a particular CMS record and erroneously identified the system as not having an MA plan. Thus, the variable that indicated whether a system offered an MA plan is a conservative measure.

Misalignment of Data Source Time Periods

The list reflects health systems in the United States at the end of 2016. That time period differed slightly from the time periods represented by the insurance product variables. The AHA data were collected in 2015. The MA data were from January 2016.[iv] As we developed the variables, we identified some cases in which a system sold its MA plan (or its stake in the plan) or closed

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[iv] We chose to use January 2016 because we were concerned about missing data in the MA Plan Directory for later months of 2016. For example, 7 percent of the contracts in the November 2016 MA monthly enrollment report were not listed in the MA Plan Directory in the same month. The January 2016 MA Plan Directory did not have such a discrepancy. For more information, go to https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MCRAdvPartDEnrolData/index.html.

the plan after January 2016. Thus, for some systems, we probably misclassified their ownership of any insurance product or an MA plan because the timing of our data sources were misaligned.

For example, we classified nine systems as offering an MA plan even though those systems did not report an insurance product according to AHA data. This discrepancy could reflect an MA plan that was first offered in 2016, which was after AHA data were collected. The discrepancy could also have appeared because the system's AHA respondents were unaware of the MA plan offered by their system or did not consider the program that we measured as an MA plan to be an insurance product. At least four of the nine systems that did not report an insurance product according to AHA data had a PACE program according to the MA data.

Table E.2. Matches of health systems to CMS MA records using MA parent organization name and address

Health System ID	Health System Name	Health System City	Health System State	MA Parent Organization Name	MA Legal Entity City	MA Legal Entity State	MA Record Linked to Subsystem of Parent Health System
HSI00000044	ArchCare	New York	NY	Catholic Health Care System	New York	NY	0
HSI00000055	Ascension Health	Saint Louis	MO	St Francis Health System & St John Health System	Tulsa	OK	0
HSI00000065	Aultman Health Foundation	Canton	OH	Aultman Health Foundation	Canton	OH	0
HSI00000073	Banner Health	Phoenix	AZ	Banner Health	Tucson	AZ	0
HSI00000074	Baptist Health	Little Rock	AR	USAble Mutual Insurance Company	Little Rock	AR	0
HSI00000080	Baptist Healthcare System, Inc	Louisville	KY	Baptist Healthcare System	Lexington	KY	0
HSI00000096	Baylor Scott and White Health	Dallas	TX	Baylor Scott & White Holdings	Temple	TX	0
HSI00000097	Baystate Health	Springfield	MA	Baystate Health, Inc.	Springfield	MA	0
HSI00000131	Boston Medical Center	Boston	MA	Boston Medical Center Corporation	Boston	MA	0
HSI00000152	CHRISTUS Health	Irving	TX	CHRISTUS Health Plan	Irving	TX	0
HSI00000156	Cambridge Health Alliance	Cambridge	MA	Cambridge Health Alliance	Cambridge	MA	0
HSI00000171	CaroMont Health System	Gastonia	NC	CaroMont Health, Inc.	Gastonia	NC	0
HSI00000183	Catholic Health Initiatives	Englewood	CO	Catholic Health Initiatives	Omaha	NE	0
HSI00000184 (HSI00000183)	Catholic Health Initiatives Saint Vincent Health System (Catholic Health Initiatives)	Little Rock	AR	Catholic Health Initiatives	Little Rock	AR	1
HSI00000187 (HSI00000055)	Catholic Health System (Ascension Health)	Buffalo	NY	Catholic Health System, Inc.	Lackawanna	NY	1
HSI00000192	Centra Health	Lynchburg	VA	Centra Health, Inc.	Lynchburg	VA	0
HSI00000270	Contra Costa Health Services	Martinez	CA	Contra Costa Health Services	Martinez	CA	0

Health System ID	Health System Name	Health System City	Health System State	MA Parent Organization Name	MA Legal Entity City	MA Legal Entity State	MA Record Linked to Subsystem of Parent Health System
HSI00000285 (HSI00000924)	Covenant Health (Saint Joseph Health System)	Lubbock	TX	Covenant Health - Hendrick Medical Center	Austin	TX	1
HSI00000307	Denver Health	Denver	CO	Denver Health and Hospital Authority	Denver	CO	0
HSI00000365	FirstHealth of the Carolinas	Pinehurst	NC	FirstHealth of the Carolinas, Inc.	Pinehurst	NC	0
HSI00000375	Franciscan Alliance, Inc	Mishawaka	IN	Franciscan Alliance, Inc.	Indianapolis	IN	0
HSI00000376	Franciscan Missionaries of Our Lady Health System, Inc	Baton Rouge	LA	Franciscan Missionaries of Our Lady Health System	Baton Rouge	LA	0
HSI00000386	Froedtert and The Medical College of Wisconsin	Milwaukee	WI	Ministry Health Care, Inc.	Menasha	WI	0
HSI00000388	Geisinger Health System	Danville	PA	Geisinger Health System	Danville	PA	0
HSI00000392 (HSI00000055)	Genesys Health System (Ascension Health)	Grand Blanc	MI	Genesys Health System	Grand Blanc	MI	1
HSI00000427	Group Health Cooperative	Seattle	WA	Group Health Cooperative	Seattle	WA	0
HSI00000428	Gundersen Health System	La Crosse	WI	Gundersen Lutheran Health System Inc.	LaCrosse	WI	0
HSI00000461	Health First, Inc	Rockledge	FL	Health First, Inc.	Rockledge	FL	0
HSI00000464	HealthPartners, Inc	Minneapolis	MN	HealthPartners, Inc.	Minneapolis	MN	0
HSI00000471	Hendrick Health System	Abilene	TX	Covenant Health - Hendrick Medical Center	Austin	TX	0
HSI00000475	Henry Ford Health System	Detroit	MI	Henry Ford Health System	Detroit	MI	0
HSI00000506	IASIS Healthcare Corporation	Franklin	TN	IASIS Healthcare	Phoenix	AZ	0
HSI00000510	Indiana University Health	Indianapolis	IN	Indiana University Health	Indianapolis	IN	0
HSI00000513	Inova Health System	Falls Church	VA	Inova Health Systems, Inc.	Fairfax	VA	0
HSI00000514	Inspira Health Network	Mullica Hill	NJ	Inspira Health Network, Inc.	Vineland	NJ	0
HSI00000516	Intermountain Healthcare	Salt Lake City	UT	Intermountain Health Care, Inc.	Murray	UT	0

Health System ID	Health System Name	Health System City	Health System State	MA Parent Organization Name	MA Legal Entity City	MA Legal Entity State	MA Record Linked to Subsystem of Parent Health System
HSI00000531	Johns Hopkins Health System	Baltimore	MD	The Johns Hopkins Health System Corporation	Baltimore	MD	0
HSI00000570	Lakeland Regional Health System	Saint Joseph	MI	PACE of Southwest Michigan, Inc.	St. Joseph	MI	0
HSI00000597 (HSI00001106)	Lourdes Health System (Trinity Health)	Camden	NJ	Trinity Health	Pennsauken	NJ	1
HSI00000615	Maricopa Integrated Health System	Phoenix	AZ	MARICOPA COUNTY SPECIAL HEALTH CARE DISTRICT	Phoenix	AZ	0
HSI00000621	Marshfield Clinic	Marshfield	WI	Marshfield Clinic Health System, Inc.	Marshfield	WI	0
HSI00000636	McLaren Health Care Corp	Flint	MI	McLaren Health Care Corporation	Flint	MI	0
HSI00000640	MedStar Health	Columbia	MD	Medstar Health, Inc.	Baltimore	MD	0
HSI00000654	Memorial Hermann Healthcare System	Houston	TX	Memorial Hermann Healthcare System	Houston	TX	0
HSI00000659 (HSI00001106)	Mercy Health (Trinity Health)	Norton Shores	MI	LifeCircles	Muskegon	MI	1
HSI00000688 (HSI00000055)	Ministry Healthcare (Ascension Health)	Milwaukee	WI	Ministry Health Care, Inc.	Menasha	WI	1
HSI00000691	Mission Health System	Asheville	NC	Mission Health	Asheville	NC	0
HSI00000713	Mountain States Health Alliance	Johnson City	TN	Mountain States Health Alliance	Johnson City	TN	0
HSI00000730	New York City Health and Hospitals Corporation	New York	NY	New York City Health and Hospitals Corporation	New York	NY	0
HSI00000807	Palmetto Health	Columbia	SC	Palmetto Health Alliance	Columbia	SC	0
HSI00000820	University of Pennsylvania Health System	Philadelphia	PA	New Courtland LIFE Program	Philadelphia	PA	0
HSI00000833	Pomona Valley Hospital Medical Center	Pomona	CA	InterValley Health Plan	Pomona	CA	0
HSI00000843	Presbyterian Healthcare Services	Albuquerque	NM	Presbyterian Healthcare Services	Albuquerque	NM	0

Health System ID	Health System Name	Health System City	Health System State	MA Parent Organization Name	MA Legal Entity City	MA Legal Entity State	MA Record Linked to Subsystem of Parent Health System
HSI00000848	ProMedica Health System	Toledo	OH	Promedica Health System	Maumee	OH	0
HSI00000852	Providence Health and Services	Renton	WA	Providence Health & Services	Seattle	WA	0
HSI00000874	Renown Health	Reno	NV	Renown Health	Reno	NV	0
HSI00000883	Riverside Health System	Newport News	VA	Riverside Healthcare Association	Newport News	VA	0
HSI00000889	Rochester Regional Health System	Rochester	NY	Rochester General Health System	Rochester	NY	0
HSI00000902	SSM Health	Saint Louis	MO	SSM Healthcare Corporation	Madison	WI	0
HSI00000911	Saint Bernards Healthcare	Jonesboro	AR	St. Bernard's Healthcare	Jonesboro	AR	0
HSI00000919	Saint Francis Health System	Tulsa	OK	St Francis Health System & St John Health System	Tulsa	OK	0
HSI00000951	Samaritan Health Services	Corvallis	OR	Samaritan Health Services	Corvallis	OR	0
HSI00000958	Sanford Health	Sioux Falls	SD	Sanford Health Plan	Sioux Falls	SD	0
HSI00000972	Sentara Healthcare	Norfolk	VA	Sentara Health Care (SHC)	Norfolk	VA	0
HSI00000977	Sharp HealthCare	San Diego	CA	Sharp Healthcare	San Diego	CA	0
HSI00001020	Spartanburg Regional Healthcare System	Spartanburg	SC	Spartanburg Regional Health Services District, Inc	Greenville	SC	0
HSI00001021	Spectrum Health	Grand Rapids	MI	Spectrum Health System	Grand Rapids	MI	0
HSI00001033	Stanford Health Care	Stanford	CA	Stanford Health Care	Oakland	CA	0
HSI00001043	Summa Health System	Akron	OH	Summa Health System	Akron	OH	0
HSI00001050	Sutter Health	Sacramento	CA	Sutter Health Sacramento Sierra Region	Sacramento	CA	0
HSI00001066	Tenet Healthcare Corporation	Dallas	TX	Tenet Healthcare Corporation	Harlingen	TX	0
HSI00001074	The Carle Foundation	Urbana	IL	The Carle Foundation	Urbana	IL	0
HSI00001106	Trinity Health	Livonia	MI	Trinity Health	Wilmington	DE	0
HSI00001116	UAB Health System	Birmingham	AL	UAB Health System	Birmingham	AL	0
HSI00001126	UPMC	Pittsburgh	PA	UPMC Health System	Pittsburgh	PA	0

Health System ID	Health System Name	Health System City	Health System State	MA Parent Organization Name	MA Legal Entity City	MA Legal Entity State	MA Record Linked to Subsystem of Parent Health System
HSI00001146	UnityPoint Health	West Des Moines	IA	St. Luke's Health System, Inc.	Sioux City	IA	0
HSI00001148	Universal Health Services, Inc	Norristown	PA	Universal Health Services, Inc.	Reno	NV	0
HSI00001175	University of Maryland Medical System	Baltimore	MD	Riverside Health, Inc.	Timonium	MD	0
HSI00001213	VCU Health System	Richmond	VA	Virginia Cwlth University Hlth System Authority	Richmond	VA	0
HSI00001227 (HSI00000055)	Via Christi Health System (Ascension Health)	Wichita	KS	Via Christi Outreach Pgrm. Elders, Inc	Wichita	KS	1

Source: 2016 Compendium of U.S. Health Systems and CMS MA Plan Directory, January 2016.

Note: In a few cases, we matched an MA record to a subsystem of a parent health system from the consolidated list of 626 systems. That subsystem was aggregated to the parent system so that the parent system was identified as offering an MA plan. In these cases, we provide the ID, name, city, and State for the subsystem, and we provide the ID and name of the parent system in parentheses.

Table E.3. Matches of health systems to CMS MA records using MA organization marketing name and address

Health System ID	Health System Name	Health System City	Health System State	MA Organization Marketing Name	MA Legal Entity City	MA Legal Entity State	MA Record Linked to Subsystem of Parent Health System
HSI00000536	Kaiser Permanente	Oakland	CA	Kaiser Permanente	Oakland	CA	0
HSI00000842 (HSI00000183)	Premier Health (Catholic Health Initiatives)	Dayton	OH	Premier Health Plan	Dayton	OH	1

Source: 2016 Compendium of U.S. Health Systems and CMS MA Plan Directory, January 2016.

Note: In a few cases, we matched an MA record to a subsystem of a parent health system from the consolidated list of 626 systems. That subsystem was aggregated to the parent system so that the parent system was identified as offering an MA plan. In these cases, we provide the ID, name, city, and State for the subsystem, and we provide the ID and name of the parent system in parentheses.

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