February 2018

Evaluation of the Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents—Payment Reform

Appendices

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EVALUATION OF THE INITIATIVE TO REDUCE AVOIDABLE HOSPITALIZATIONS
AMONG NURSING FACILITY RESIDENTS—PAYMENT REFORM

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APPENDICES

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APPENDIX A
PARTICIPATING FACILITIES (AUGUST 2017)

Tables A-1 through *A-6* list the ECCP participating facilities in the B groups. *Tables A-7* through *A-12* list the ECCP participating facilities in the A groups. Facility locations are included for both groups.

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Table A-1
Participating ECCP Group B facilities as of August 2017: Alabama

PROVNUM	PROVNAME	Address	City	State	ZIP
015027	WETUMPKA HEALTH AND REHABILITATION, LLC	1825 HOLTVILLE ROAD	WETUMPKA	AL	36092
015040	DIVERSICARE – MONTGOMERY	2020 NORTH COUNTRY CLUB DRIVE	MONTGOMERY	AL	36106
015091	NORTH HILL NURSING AND REHABILITATION CTR, LLC	200 NORTH PINE HILL ROAD	BIRMINGHAM	AL	35217
015115	CORDOVA HEALTH AND REHABILITATION, LLC	70 HIGHLAND STREET WEST	CORDOVA	AL	35550
015126	TRAYLOR RETIREMENT COMMUNITY	1235 YANCEY STREET P O BOX 467	ROANOKE	AL	36274
015132	DIVERSICARE OF OXFORD	P O BOX 3408, 1130 SOUTH HALE STREET	OXFORD	AL	36203
015136	FALKVILLE HEALTH CARE CENTER	10 WEST 3RD STREET PO BOX 409	FALKVILLE	AL	35622
015145	DIVERSICARE – RIVERCHASE	2500 RIVERHAVEN DRIVE	BIRMINGHAM	AL	35244
015159	DIVERSICARE – ONEONTA	215 VALLEY ROAD	ONEONTA	AL	35121
015160	SYLACAUGA HEALTH AND REHAB SERVICES	1007 W FORT WILLIAMS ST	SYLACAUGA	AL	35150
015162	TALLADEGA HEALTHCARE CENTER, INC	616 CHAFFEE STREET	TALLADEGA	AL	35160
015166	DADEVILLE HEALTHCARE CENTER	351 NORTH EAST STREET	DADEVILLE	AL	36853
015202	MCGUFFEY HEALTH & REHABILITATION CENTER	2301 RAINBOW DRIVE	GADSDEN	AL	35999
015206	DECATUR HEALTH & REHAB CENTER	2326 MORGAN AVENUE SOUTHWEST	DECATUR	AL	35603
015209	DIVERSICARE OF BESSEMER	820 GOLF COURSE ROAD	BESSEMER	AL	35020
015221	CHAPMAN HEALTHCARE CENTER, INC	3701 DADEVILLE ROAD	ALEXANDER CITY	AL	35010

(continued)

Table A-1 (continued)
Participating ECCP Group B facilities as of August 2017: Alabama

PROVNUM	PROVNAME	Address	City	State	ZIP
015383	WOODLAND VILLAGE REHABILITATION AND HEALTHCARE CEN	1900 OLIVE STREET	CULLMAN	AL	35055
015411	SHELBY RIDGE NURSING HOME	881 3RD STREET NORTHEAST	ALABASTER	AL	35007
015436	HILLVIEW TERRACE	100 PERRY HILL RD	MONTGOMERY	AL	36109
015437	FOLSOM CENTER FOR REHABILITATION AND HEALTHCARE, T	401 ARNOLD STREET N.E.	CULLMAN	AL	35055

Table A-2
Participating ECCP Group B facilities as of August 2017: Indiana

PROVNUM	PROVNAME	Address	City	State	ZIP
155001	HOOVERWOOD	7001 HOOVER RD	INDIANAPOLIS	IN	46260
155041	NORTHWEST MANOR HEALTH CARE CENTER	6440 W 34TH ST	INDIANAPOLIS	IN	46224
155106	RIVERWALK VILLAGE	295 WESTFIELD RD	NOBLESVILLE	IN	46060
155138	GOLDEN LIVING CENTER-INDIANAPOLIS	2860 CHURCHMAN AVE	INDIANAPOLIS	IN	46203
155226	NORTH CAPITOL NURSING & REHABILITATION CENTER	2010 N CAPITOL AVE	INDIANAPOLIS	IN	46202
155241	FOREST CREEK VILLAGE	525 E THOMPSON RD	INDIANAPOLIS	IN	46227
155271	MILLER'S SENIOR LIVING COMMUNITY	8400 CLEARVISTA PL	INDIANAPOLIS	IN	46256
155292	AMERICAN VILLAGE	2026 E 54TH ST	INDIANAPOLIS	IN	46220
155327	UNIVERSITY HEIGHTS HEALTH AND LIVING COMMUNITY	1380 E COUNTY LINE RD S	INDIANAPOLIS	IN	46227
155329	ROSEWALK VILLAGE	1302 N LESLEY AVE	INDIANAPOLIS	IN	46219
155389	WESTPARK A WATERS COMMUNITY	1316 N TIBBS AVE	INDIANAPOLIS	IN	46222
155557	MILLER'S MERRY MANOR	1651 N CAMPBELL ST	INDIANAPOLIS	IN	46218
155636	HARRISON TERRACE	1924 WELLESLEY BLVD	INDIANAPOLIS	IN	46219
155761	BROWNSBURG MEADOWS	2 E TILDEN	BROWNSBURG	IN	46112
155786	ALLISONVILLE MEADOWS	10312 ALLISONVILLE RD	FISHERS	IN	46038
155788	GREENWOOD MEADOWS	1200 N SR 135	GREENWOOD	IN	46142
155792	COUNTRYSIDE MEADOWS	762 N DAN JONES RD	AVON	IN	46123

Table A-3
Participating ECCP Group B facilities as of August 2017: Missouri

PROVNUM	PROVNAME	Address	City	State	ZIP
265001	NHC HEALTHCARE, TOWN & COUNTRY	13995 CLAYTON ROAD	TOWN AND COUNTRY	MO	63017
265105	DELMAR GARDENS WEST	13550 SOUTH OUTER 40 ROAD	TOWN AND COUNTRY	MO	63017
265156	DELMAR GARDENS ON THE GREEN	15197 CLAYTON ROAD	CHESTERFIELD	MO	63017
265158	NHC HEALTHCARE, DESLOGE	801 BRIM STREET, PO BOX AA	DESLOGE	MO	63601
265170	DELMAR GARDENS OF CHESTERFIELD	14855 NORTH OUTER 40 ROAD	CHESTERFIELD	MO	63017
265202	CEDARCREST MANOR	324 WEST 5TH STREET	WASHINGTON	MO	63090
265216	SCENIC NURSING AND REHABILITATION CENTER, LLC	1333 SCENIC DRIVE	HERCULANEUM	MO	63048
265310	DELMAR GARDENS SOUTH	5300 BUTLER HILL ROAD	SAINT LOUIS	MO	63128
265325	DELMAR GARDENS NORTH	4401 PARKER ROAD	BLACK JACK	MO	63033
265343	DELMAR GARDENS OF CREVE COEUR	850 COUNTRY MANOR LANE	CREVE COEUR	MO	63141
265351	ALEXIAN BROS LANSDOWNE VILLAGE	4624 LANSDOWNE AVENUE	SAINT LOUIS	MO	63116
265401	FESTUS MANOR	627 WESTWOOD DRIVE SOUTH	FESTUS	MO	63028
265417	ALEXIAN BROS SHERBROOKE VILLAGE	4005 RIPA AVENUE	SAINT LOUIS	MO	63125
265711	DELMAR GARDENS OF MERAMEC VALLEY	#1 ARBOR TERRACE	FENTON	MO	63026
265717	GRAND MANOR NURSING & REHABILITATION CENTER	3645 COOK AVE	SAINT LOUIS	MO	63113
265792	DELMAR GARDENS OF O'FALLON	7068 SOUTH OUTER 364	O FALLON	MO	63368

Table A-4
Participating ECCP Group B facilities as of August 2017: Nevada

PROVNUM	PROVNAME	Address	City	State	ZIP
295017	HORIZON HEALTH AND REHABILITATION CENTER	660 DESERT LN	LAS VEGAS	NV	89106
295020	ROSEWOOD REHABILITATION CENTER	2045 SILVERADA BLVD	RENO	NV	89512
295023	CARSON NURSING AND REHABILITATION CENTER	2898 HIGHWAY 50 EAST	CARSON CITY	NV	89701
295037	LAKE MEAD HEALTH AND REHABILITATION CENTER	1180 E. LAKE MEAD DRIVE	HENDERSON	NV	89015
295043	MANOR CARE HEALTH SERVICES	3101 PLUMAS	RENO	NV	89509
295050	LIFE CARE CENTER OF RENO	445 W. HOLCOMB LANE	RENO	NV	89511
295068	HIGHLAND MANOR OF MESQUITE	272 PIONEER BLVD	MESQUITE	NV	89027
295070	MARQUIS CARE PLAZA REGENCY	6021 W. CHEYENNE AVE.	LAS VEGAS	NV	89108
295071	TLC CARE CENTER	1500 W WARM SPRINGS RD	HENDERSON	NV	89014
295072	SILVER RIDGE HEALTHCARE CENTER	1151 TORREY PINES DR.	LAS VEGAS	NV	89146
295078	HIGHLAND MANOR OF ELKO	2850 RUBY VISTA DRIVE	ELKO	NV	89801
295088	MANOR CARE HEALTH SERVICES WINGFIELD HILLS	2350 WINGFIELD HILLS DR	SPARKS	NV	89436
295089	MARQUIS CARE AT CENTENNIAL HILLS	6351 N FORT APACHE RD	LAS VEGAS	NV	89149

Table A-5
Participating ECCP Group B facilities as of August 2017: New York

PROVNUM	PROVNAME	Address	City	State	ZIP
335020	HEBREW HOME FOR THE AGED AT RIVERDALE	5901 PALISADE AVENUE	RIVERDALE	NY	10471
335133	SAPPHIRE CTR FOR REHAB & NURSING OF CENTRAL QUEENS	35 15 PARSONS BLVD	FLUSHING	NY	11354
335227	WORKMENS CIRCLE MULTICARE CENTER	3155 GRACE AVENUE	BRONX	NY	10469
335250	HIGHFIELD GARDENS CARE CENTER OF GREAT NECK	199 COMMUNITY DRIVE	GREAT NECK	NY	11021
335254	ACADIA CENTER FOR NURSING AND REHABILITATION	1146 WOODCREST AVENUE	RIVERHEAD	NY	11901
335301	ST JAMES REHAB & HEALTH CARE CENTER	275 MORICHES ROAD	ST JAMES	NY	11780
335436	JAMAICA HOSPITAL NURSING HOME	89-40 135TH STREET	JAMAICA	NY	11418
335445	DAUGHTERS OF JACOB NURSING HOME CO, INC	1160 TELLER AVE	BRONX	NY	10456
335491	THE NEW JEWISH HOME, MANHATTAN	120 WEST 106TH STREET	NEW YORK	NY	10025
335505	HIGHLAND CARE CENTER INC	91 31 175TH STREET	JAMAICA	NY	11432
335522	HARLEM CENTER FOR NURSING & REHABILITATION, LLC	30 WEST 138TH STREET	NEW YORK	NY	10037
335555	COLD SPRINGS HILLS CTR FOR NURSING AND REHAB	378 SYOSSET WOODBURY ROAD	WOODBURY	NY	11797
335596	SUFFOLK CENTER FOR REHABILITATION AND NRSG	25 SCHOENFELD BLVD	PATCHOGUE	NY	11772
335636	GOOD SAMARITAN NURSING HOME	101 ELM ST	SAYVILLE	NY	11782
335665	TERENCE CARDINAL COOKE HCC	1249 FIFTH AVENUE	NEW YORK	NY	10029
335696	GURWIN JEWISH NURSING AND REHABILITATION CENTER	68 HAUPPAUGE ROAD	COMMACK	NY	11725
335724	SILVERCREST CENTER FOR NURSING AND REHABILITATION	144 45 87TH AVENUE	JAMAICA	NY	11435
335756	SMITHTOWN CENTER FOR REHAB & NURSING CARE	391 NORTH COUNTRY ROAD	SMITHTOWN	NY	11787

(continued)

Table A-5 (continued)
Participating ECCP Group B facilities as of August 2017: New York

PROVNUM	PROVNAME	Address	City	State	ZIP
335762	ST MARYS CENTER INC	516 WEST 126TH STREET	NEW YORK	NY	10027
335780	CASA PROMESA	308 EAST 175 STREET	BRONX	NY	10457
335804	THE PAVILION AT QUEENS FOR REHABILITATION & NRSING	36 17 PARSONS BOULEVARD	FLUSHING	NY	11354
335821	ST CATHERINE OF SIENA	52 ROUTE 25A	SMITHTOWN	NY	11787
335826	BUENA VIDA CONTINUING CARE	48 CEDAR STREET	BROOKLYN	NY	11221
335835	ISLAND NURSING AND REHABILITATION CENTER INC	5537 EXPRESSWAY DRIVE NORTH	HOLTSVILLE	NY	11742
335842	PECONIC LANDING AT SOUTHOLD INC	1500 BRECKNOCK ROAD	GREENPORT	NY	11944
335861	THE AMSTERDAM AT HARBORSIDE	300 EAST OVERLOOK	PORT WASHINGTON	NY	11050

Table A-6
Participating ECCP Group B facilities as of August 2017: Pennsylvania

PROVNUM	PROVNAME	Address	City	State	ZIP
395015	BRIGHTON REHABILITATION AND WELLNESS CENTER	246 FRIENDSHIP CIRCLE	BEAVER	PA	15009
395028	SQUIRREL HILL CTR FOR REHABILITATION AND HEALING	2025 WIGHTMAN STREET	PITTSBURGH	PA	15217
395401	BALL PAVILION, THE	5416 EAST LAKE ROAD	ERIE	PA	16511
395435	WESTMORELAND MANOR	2480 SOUTH GRAND BLVD	GREENSBURG	PA	15601
395489	CORRY MANOR	640 WORTH STREET	CORRY	PA	16407
395500	MOUNTAINVIEW SPECIALTY CARE CENTER	227 SAND HILL ROAD	GREENSBURG	PA	15601
395502	OAKWOOD HEIGHTS	10 VO TECH DRIVE	OIL CITY	PA	16301
395536	EDISON MANOR NURSING & REHABILITATION CENTER	222 WEST EDISON AVENUE	NEW CASTLE	PA	16101
395606	JOHN J KANE REGIONAL CENTER-RO	110 MCINTYRE ROAD	PITTSBURGH	PA	15237
395607	SHIPPENVILLE HEALTHCARE AND REHABILITATION CENTER	21158 PAINT BOULEVARD	SHIPPENVILLE	PA	16254
395640	JOHN J KANE REGIONAL CENTER-MC	100 NINTH STREET	MCKEESPORT	PA	15132
395643	JOHN J KANE REGIONAL CENTER-GL	955 RIVERMONT DRIVE	PITTSBURGH	PA	15207
395699	SWEDEN VALLEY MANOR	1028 EAST SECOND STREET	COUDERSPORT	PA	16915
395758	THE GROVE AT HARMONY	191 EVERGREEN MILL ROAD	HARMONY	PA	16037
395788	SUNNYVIEW NURSING AND REHABILITATION CENTER	107 SUNNYVIEW CIRCLE	BUTLER	PA	16001

Table A-7
Participating ECCP Group A facilities as of August 2017: Alabama

PROVNUM	PROVNAME	Address	City	State	ZIP
015047	NORTHWAY HEALTH AND REHABILITATION, LLC	1424 NORTH 25TH STREET	BIRMINGHAM	AL	35234
015129	ATMORE NURSING CENTER	715 EAST LAUREL STREET	ATMORE	AL	36502
015139	TALLASSEE HEALTH AND REHABILITATION, LLC	2639 GILMER AVENUE P O BOX 780277	TALLASSEE	AL	36078
015141	ARBOR WOODS HEALTH AND REHAB	515 2ND AVENUE NORTHWEST	REFORM	AL	35481
015142	LINEVILLE HEALTH AND REHABILITATION, LLC	88073 HIGHWAY 9	LINEVILLE	AL	36266
015151	AZALEA GARDENS OF MOBILE	1758 SPRINGHILL AVE	MOBILE	AL	36607
015163	ALBERTVILLE NURSING HOME	750 ALABAMA HIGHWAY 75 NORTH	ALBERTVILLE	AL	35950
015175	WESLEY PLACE ON HONEYSUCKLE	718 HONEYSUCKLE ROAD	DOTHAN	AL	36305
015182	GEORGIANA HEALTH AND REHABILITATION, LLC	206 PALMER AVENUE	GEORGIANA	AL	36033
015186	GLEN HAVEN HEALTH AND REHABILITATION, LLC	2201 32ND STREET	NORTHPORT	AL	35476
015188	JACKSON HEALTH CARE FACILITY	2616 NORTH COLLEGE AVENUE	JACKSON	AL	36545
015193	CROWNE HEALTH CARE OF GREENVILLE	408 COUNTRY CLUB DRIVE	GREENVILLE	AL	36037
015201	GENERATIONS OF RED BAY, LLC	106 TENTH AVENUE NORTHWEST	RED BAY	AL	35582
015227	GENERATIONS OF VERNON, LLC	1050 CONVALESCENT ROAD	VERNON	AL	35592
015374	CAMDEN NURSING FACILITY INC.	210 PONDEROSA DRIVE	CAMDEN	AL	36726
015378	MARSHALL MANOR NURSING HOME	3120 NORTH STREET	GUNTERSVILLE	AL	35976
015397	WINDSOR HOUSE	4411 MCALLISTER DRIVE	HUNTSVILLE	AL	35805
015416	ANDALUSIA MANOR	670 MOORE RD	ANDALUSIA	AL	36420
015419	HARTFORD HEALTH CARE	217 TORO ROAD	HARTFORD	AL	36344
015440	HUNTSVILLE HEALTH & REHABILITATION, LLC	4010 CHRIS DRIVE	HUNTSVILLE	AL	35802
015446	GREENBRIAR AT THE ALTAMONT SKILLED NURSING FACILIT	2831 HIGHLAND AVENUE SOUTH	BIRMINGHAM	AL	35205
015448	SOUTH HAMPTON NURSING & REHABILITATION CENTER	213 WILSON MANN ROAD	OWENS CROSS ROADS	AL	35763

Table A-8
Participating ECCP Group A facilities as of August 2017: Colorado

PROVNUM	PROVNAME	Address	City	State	ZIP
065009	ST PAUL HEALTH CENTER	1667 ST PAUL STREET	DENVER	CO	80206
065129	NORTH SHORE HEALTH AND REHAB FACILITY	1365 WEST 29TH STREET	LOVELAND	CO	80538
065142	LEMAY AVENUE HEALTH AND REHABILITATION FACILITY	4824 SOUTH LEMAY AVENUE	FORT COLLINS	CO	80525
065163	EBEN EZER LUTHERAN CARE CENTER	122 HOSPITAL ROAD	BRUSH	CO	80723
065165	SIERRA VISTA HEALTH CARE CENTER	821 DUFFIELD COURT	LOVELAND	CO	80537
065195	SAN JUAN LIVING CENTER	1043 RIDGE STREET	MONTROSE	CO	81401
065209	WESTERN HILLS HEALTH CARE CENTER	1625 CARR STREET	LAKEWOOD	CO	80214
065212	CENTENNIAL HEALTH CARE CENTER	1637 29TH AVENUE PLACE	GREELEY	CO	80634
065219	KENTON MANOR	850 27TH AVENUE	GREELEY	CO	80634
065220	COLUMBINE MANOR CARE CENTER	530 WEST 16TH STREET	SALIDA	CO	81201
065231	UNIVERSITY PARK CARE CENTER	945 DESERT FLOWER BOULEVARD	PUEBLO	CO	81001
065237	HERITAGE PARK CARE CENTER	1200 VILLAGE ROAD	CARBONDALE	CO	81623
065243	FOUR CORNERS HEALTH CARE CENTER	2911 JUNCTION STREET	DURANGO	CO	81301
065245	COLUMBINE WEST HEALTH AND REHAB FACILITY	940 WORTHINGTON CIRCLE	FORT COLLINS	CO	80526
065255	BRIARWOOD HEALTH CARE CENTER	1440 VINE STREET	DENVER	CO	80206
065266	GARDEN TERRACE ALZHEIMER'S CENTER OF EXCELLENCE	1600 SOUTH POTOMAC STREET	AURORA	CO	80012
065276	LIFE CARE CENTER OF EVERGREEN	2987 BERGEN PEAK DRIVE	EVERGREEN	CO	80439
065282	LIFE CARE CENTER OF LONGMONT	2451 PRATT STREET	LONGMONT	CO	80501
065356	LIFE CARE CENTER OF COLORADO SPRINGS	2490 INTERNATIONAL CIRCLE	COLORADO SPRINGS	CO	80910
065358	LIFE CARE CENTER OF WESTMINSTER	7751 ZENOBIA COURT	WESTMINSTER	CO	80030
065368	LIFE CARE CENTER OF GREELEY	4800 25TH STREET	GREELEY	CO	80634
065370	LIFE CARE CENTER OF LITTLETON	1500 WEST MINERAL AVENUE	LITTLETON	CO	80120

Table A-9
Participating ECCP Group A facilities as of August 2017: Indiana

PROVNUM	PROVNAME	Address	City	State	ZIP
155003	MASON HEALTH CARE CENTER	900 PROVIDENT DRIVE	WARSAW	IN	46580
155121	ROSEWALK VILLAGE AT LAFAYETTE	1903 UNION ST	LAFAYETTE	IN	47904
155160	STONEBROOKE REHABILITATION CENTER	990 N 16TH ST	NEW CASTLE	IN	47362
155167	WESTMINSTER VILLAGE NORTH	11050 PRESBYTERIAN DR	INDIANAPOLIS	IN	46236
155173	MILLER'S MERRY MANOR	505 N BRADNER AVE	MARION	IN	46952
155199	MAPLE PARK VILLAGE	776 N UNION ST	WESTFIELD	IN	46074
155242	SIGNATURE HEALTHCARE OF MUNCIE	4301 N WALNUT ST	MUNCIE	IN	47303
155243	SIGNATURE HEALTHCARE OF LAFAYETTE	300 WINDY HILL DR	LAFAYETTE	IN	47905
155291	EAGLE VALLEY MEADOWS	3017 VALLEY FARMS RD	INDIANAPOLIS	IN	46214
155357	RAWLINS HOUSE HEALTH & LIVING COMMUNITY	300 J H WALKER DR	PENDLETON	IN	46064
155364	BYRON HEALTH CENTER	12101 LIMA RD	FORT WAYNE	IN	46818
155455	WESLEYAN HEALTH CARE CENTER	729 W 35TH ST	MARION	IN	46953
155481	ARBOR TRACE HEALTH & LIVING COMMUNITY	3701 HODGIN RD	RICHMOND	IN	47374
155551	ROLLING MEADOWS HEALTH CARE CENTER	604 RENNAKER ST	LA FONTAINE	IN	46940
155593	INDIANA MASONIC HOME HEALTH CENTER	690 S STATE ST	FRANKLIN	IN	46131
155606	WESTSIDE RETIREMENT VILLAGE	8616 W 10TH ST	INDIANAPOLIS	IN	46234
155651	HOMEVIEW CENTER OF FRANKLIN	651 S STATE ST	FRANKLIN	IN	46131
155655	PEABODY RETIREMENT COMMUNITY	400 W SEVENTH ST	NORTH MANCHESTER	IN	46962
155678	WATERFORD PLACE HEALTH CAMPUS	800 ST JOSEPH DR	KOKOMO	IN	46901
155694	BETZ NURSING HOME	116 BETZ RD	AUBURN	IN	46706
155707	SWISS VILLAGE	1350 W MAIN ST	BERNE	IN	46711
155747	ADAMS WOODCREST	1300 MERCER AVE	DECATUR	IN	46733
155755	GOLDEN YEARS HOMESTEAD	3136 GOEGLEIN RD	FORT WAYNE	IN	46815

Table A-10
Participating ECCP Group A facilities as of August 2017: Missouri

PROVNUM	PROVNAME	Address	City	State	ZIP
265166	NHC HEALTHCARE, ST CHARLES	35 SUGAR MAPLE LANE	SAINT CHARLES	MO	63303
265168	NHC HEALTHCARE, KENNETT	1120 FALCON, PO BOX 696	KENNETT	MO	63857
265193	WESTWOOD HILLS HEALTH & REHABILITATION CENTER	3100 WARRIOR LANE	POPLAR BLUFF	MO	63901
265200	LOCH HAVEN	701 SUNSET HILLS DR, PO BOX 187	MACON	MO	63552
265209	NEW MADRID LIVING CENTER	1050 DAWSON ROAD	NEW MADRID	MO	63869
265236	MARK TWAIN MANOR	11988 MARK TWAIN LANE	BRIDGETON	MO	63044
265239	HERMITAGE NURSING & REHAB	FIRST AND HWY 54	HERMITAGE	MO	65668
265302	PARKSIDE MANOR	1201 HUNT AVENUE	COLUMBIA	MO	65202
265319	PARKLANE CARE AND REHABILITATION CENTER	401 MAR-LE DRIVE	WENTZVILLE	MO	63385
265338	WESTCHESTER HOUSE, THE	550 WHITE ROAD	CHESTERFIELD	MO	63017
265369	CRYSTAL OAKS	1500 CALVARY CHURCH ROAD, PO BOX 680	FESTUS	MO	63028
265373	LIFE CARE CENTER OF WAYNESVILLE	700 BIRCH LANE	WAYNESVILLE	MO	65583
265398	GAMMA ROAD LODGE	250 E LOCUST	WELLSVILLE	MO	63384
265447	MCDONALD COUNTY LIVING CENTER	1000 PATTERSON STREET	ANDERSON	MO	64831
265473	GLENDALE GARDENS NURSING & REHAB	3535 EAST CHEROKEE	SPRINGFIELD	MO	65809
265481	PIN OAKS LIVING CENTER	1525 WEST MONROE	MEXICO	MO	65265
265498	BLUFFS, THE	3105 BLUFF CREEK DRIVE	COLUMBIA	MO	65201
265555	ELDON NURSING & REHAB	1001 EAST NORTH STREET	ELDON	MO	65026
265670	FRENE VALLEY OF OWENSVILLE-A STONEBRIDGE COMMUNITY	1016 W HIGHWAY 28	OWENSVILLE	MO	65066
265674	ST FRANCOIS MANOR	1180 OLD JACKSON ROAD	FARMINGTON	MO	63640
265751	RIVERVIEW, THE	5500 SOUTH BROADWAY	SAINT LOUIS	MO	63111
265764	BETHESDA DILWORTH	9645 BIG BEND BLVD	SAINT LOUIS	MO	63122
265766	BETHESDA MEADOW	322 OLD STATE ROAD	ELLISVILLE	MO	63021
265835	BROOKHAVEN NURSING & REHAB	3405 WEST MT VERNON	SPRINGFIELD	MO	65802

Table A-11
Participating ECCP Group A facilities as of August 2017: New York

PROVNUM	PROVNAME	Address	City	State	ZIP
335024	BEACH TERRACE CARE CENTER	640 WEST BROADWAY	LONG BEACH	NY	11561
335080	REGENCY EXTENDED CARE CENTER	65 ASHBURTON AVENUE	YONKERS	NY	10701
335161	DALEVIEW CARE CENTER	574 FULTON STREET	EAST FARMINGDALE	NY	11735
335178	BROOKLYN CTR FOR REHAB AND RESIDENTIAL HLTH CARE	1455 CONEY ISLAND AVENUE	BROOKLYN	NY	11230
335265	VAN RENSSELAER MANOR	85 BLOOMINGROVE DRIVE	TROY	NY	12180
335284	CENTRAL ISLAND HEALTHCARE	825 OLD COUNTRY RD	PLAINVIEW	NY	11803
335285	PINE VALLEY CENTER FOR REHAB AND NURSING	661 N MAIN ST	SPRING VALLEY	NY	10977
335346	ELDERWOOD AT WAVERLY	37 NORTH CHEMUNG STREET	WAVERLY	NY	14892
335380	NORTHERN METROPOLITAN R H C F INC	225 MAPLE AVENUE	MONSEY	NY	10952
335418	NORTHERN RIVERVIEW HEALTH CARE	87 SOUTH ROUTE 9W	HAVERSTRAW	NY	10927
335427	ONEIDA HEALTHCARE	323 GENESEE STREET	ONEIDA	NY	13421
335464	ELANT AT MEADOW HILL	172 MEADOW HILL ROAD	NEWBURGH	NY	12550
335466	KINGSWAY ARMS NURSING CENTER INC	323 KINGS ROAD	SCHENECTADY	NY	12304
335470	BORO PARK CENTER FOR NURSING AND REHAB CENTER	4915 10TH AVE	BROOKLYN	NY	11219
335475	CHARLES T SITRIN HEALTH CARE S N F	2050 TILDEN AVE	NEW HARTFORD	NY	13413
335503	HOLLISWOOD CENTER FOR REHABILITATION & HEALTHCARE	195 44 WOODHULL AVENUE	HOLLIS	NY	11423
335504	SENECA HEALTH CARE CENTER	2987 SENECA STREET	WEST SENECA	NY	14224
335506	BRONX CENTER FOR REHAB HEALTH	1010 UNDERHILL AVE	BRONX	NY	10472
335560	N Y CONGREGATIONAL NURSING CTR	135 LINDEN BOULEVARD	BROOKLYN	NY	11226
335566	MAPLEWOOD HEALTH CARE AND REHABILITATION CENTER	205 STATE STREET ROAD	CANTON	NY	13617

Table A-11 (continued)
Participating ECCP Group A facilities as of August 2017: New York

PROVNUM	PROVNAME	Address	City	State	ZIP
335621	UNITED HEBREW GERIATRIC CENTER	391 PELHAM ROAD	NEW ROCHELLE	NY	10805
335634	GARDEN GATE HEALTH CARE FACILITY	2365 UNION ROAD	CHEEKTOWAGA	NY	14227
335662	AUTUMN VIEW HEALTH CARE FACILITY LLC	S 4650 SOUTHWESTERN BLVD	HAMBURG	NY	14075
335672	VALLEY HEALTH SERVICES INC	690 WEST GERMAN STREET	HERKIMER	NY	13350
335684	ELANT AT GOSHEN INC	46 HARRIMAN DRIVE	GOSHEN	NY	10924
335703	BUSHWICK CENTER FOR REHAB AND HEALTH CARE	50 SHEFFIELD AVENUE	BROOKLYN	NY	11207
335713	SYRACUSE HOME ASSOCIATION	7740 MEIGS ROAD	BALDWINSVILLE	NY	13027
335757	HARRIS HILL NURSING FACILITY LLC	2699 WEHRLE DRIVE	WILLIAMSVILLE	NY	14221
335760	EDDY HERITAGE HOUSE NURSING AND REHAB CTR	2920 TIBBITS AVENUE	TROY	NY	12180
335765	TEN BROECK COMMONS	ONE COMMONS DRIVE	LAKE KATRINE	NY	12449
335767	OUR LADY OF MERCY LIFE CENTER	2 MERCYCARE LANE	GUILDERLAND	NY	12084
335803	WINGATE AT ULSTER	ONE WINGATE WAY	HIGHLAND	NY	12528
335828	WINGATE AT BEACON	10 HASTINGS DRIVE	BEACON	NY	12508

Table A-12
Participating ECCP Group A facilities as of August 2017: Pennsylvania

PROVNUM	PROVNAME	Address	City	State	ZIP
395171	WESTMINSTER VILLAGE	803 NORTH WAHNETA ST	ALLENTOWN	PA	18103
395354	SILVER STREAM CENTER	905 PENLLYN PIKE	SPRING HOUSE	PA	19477
395360	GERMANTOWN HOME	6950 GERMANTOWN AVENUE	PHILADELPHIA	PA	19119
395402	MANORCARE HEALTH SERVICES-POTTSTOWN	724 NORTH CHARLOTTE ST	POTTSTOWN	PA	19464
395408	LAUREL CENTER	125 HOLLY ROAD	HAMBURG	PA	19526
395459	CRESTVIEW CENTER	262 TOLL GATE ROAD	LANGHORNE	PA	19047
395475	HOMELAND CENTER	1901 NORTH FIFTH STREET	HARRISBURG	PA	17102
395533	WINDY HILL VILLAGE OF PRESBYTERIAN HOMES	100 DOGWOOD DRIVE	PHILIPSBURG	PA	16866
395563	MORRISONS COVE HOME	429 SOUTH MARKET STREET	MARTINSBURG	PA	16662
395568	JULIA POUND CARE CENTER	1155 INDIAN SPRINGS ROAD	INDIANA	PA	15701
395602	WESLEY VILLAGE	209 ROBERTS ROAD	PITTSTON	PA	18640
395697	WOODLAND REHABILITATION AND NURSING CENTER	18889 CROGHAN PIKE	ORBISONIA	PA	17243
395717	LINWOOD NURSING AND REHABILITATION CENTER	100 LYNWOOD AVENUE	SCRANTON	PA	18505
395782	FAIRVIEW CARE CENTER OF BETHLEHEM PIKE	184 BETHLEHEM PIKE	PHILADELPHIA	PA	19118
395791	HARSTON HALL	350 HAWS LANE	FLOURTOWN	PA	19031
395831	SCHUYLKILL CENTER	1000 SCHUYLKILL MANOR RD	POTTSVILLE	PA	17901
395878	ORWIGSBURG CENTER	1000 ORWIGSBURG MANOR DR	ORWIGSBURG	PA	17961
395904	SANATOGA CENTER	225 EVERGREEN ROAD	POTTSTOWN	PA	19464
395939	LEHIGH CENTER	1718 SPRING CREEK ROAD	MACUNGIE	PA	18062
396077	OLD ORCHARD HEALTH CARE CENTER	4100 FREEMANSBURG AVENUE	EASTON	PA	18045

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APPENDIX B
PROPENSITY SCORE MODEL VARIABLES CONSIDERED

Table B-1 lists all the variables considered for inclusion in propensity score modeling, including variable type (categorical or continuous) and data source. Not all variables were used in the models for all ECCPs.

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Table B-1
Propensity Score Model Variables Considered

Variable	Variable Type	Data Source
All-cause hospitalization rate (per 1,000 person-days)	Continuous	Medicare Part A claims
Potentially avoidable hospitalization rate (per 1,000 person-days)	Continuous	Medicare Part A claims
Number of occupied beds	Continuous	CASPER
Total CNA hours per resident per day	Continuous	CASPER
Total LPN/LVN hours per resident per day	Continuous	CASPER
Total RN hours per resident per day	Continuous	CASPER
Total LPN/LVN + RN hours per resident per day	Continuous	CASPER
Total CNA+ LPN/LVN + RN hours per resident per day	Continuous	CASPER
Case-mix acuity index	Continuous	CASPER
Percentage of residents with dementia	Continuous	CASPER
Percentage of residents age < 65	Continuous	MDS 3.0
Percentage of residents who are nonwhite	Continuous	MDS 3.0
Percentage of residents who are Hispanic	Continuous	MDS 3.0
Percentage of residents with advance directives	Continuous	CASPER
Number of residents who are long-stay	Continuous	MDS 3.0
Percentage of residents who are long-stay	Continuous	MDS 3.0
Percentage of Medicare Advantage residents	Continuous	MDS 3.0
Health inspection rating	Continuous	NHC April 2016
Staffing rating	Continuous	NHC April 2016
Overall rating	Continuous	NHC August 2015
Quality rating	Continuous	NHC April 2016
Occupancy rate	Continuous	CASPER
For-profit status	Categorical	NHC April 2016
Rural	Categorical	NHC April 2016
Distinct-part facility (hospital-based)	Categorical	NHC April 2016

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APPENDIX C
VARIABLES USED IN PROPENSITY SCORE MODELS

In Appendix C, we further describe the facility-level variables considered in the propensity score models.

Table C-1 shows the variables used in each ECCP's propensity score model, of those considered.

Tables C-2 and *C-3* show the facility-level characteristics for all ECCPs combined and the combined matched comparison group, separately for Group A and Group B.

Tables C-4 and *C-5* show the facility-level characteristics for all ECCPs combined except for ECCPs in Nevada and Colorado and the combined matched comparison group except for Texas, separately for Group A and Group B. Comparing *Tables C-2* vs. *C-4* and *Tables C-3* vs. *C-5*, there were fewer statistically significant differences in facility-level characteristics after Nevada, Colorado and Texas were excluded from the all-state pool.

Tables C-6 through C-17 show the facility-level characteristics for each ECCP and its respective matched comparison group, separately for Group A and Group B. We used two-sample t-tests to identify statistically significant differences (at the 0.05 level) in facility-level characteristics, comparing ECCP groups to matched comparison groups, for continuous variables and chi-square tests for categorical variables. In each table, we present a full list of facility-level variables that are considered for use in propensity score models, with those variables actually used in the final propensity score model and in propensity matching for comparison facilities marked with an asterisk.

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Table C-1
Variables used in Propensity Score Models

	AL		IN		MO		NV/CO		NY		PA	
	A	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**
All-cause hospitalization rate (per 1,000 person-days)	X	X	X	X	X	X	X	X	X	X	X	X
Potentially avoidable hospitalization rate (per 1,000 person-days)												
Number of occupied beds	X		X						X	X	X	
Total CNA hours per resident per day	X	X	X						X	X	X	
Total LPN/LVN hours per resident per day			X							X		
Total RN hours per resident per day			X						X	X		
Total LPN/LVN + RN hours per resident per day	X	X									X	
Total CNA+ LPN/LVN + RN hours per resident per day				X	X	X	X	X				X
Case-mix acuity index	X	X	X	X	X	X	X	X	X	X	X	X
Percentage of residents with dementia	X	X			X	X					X	
Percentage of residents age < 65	X	X	X	X	X	X	X	X	X	X	X	X
Percentage of residents who are nonwhite	X	X	X		X	X	X	X	X	X	X	X
Percentage of residents who are Hispanic												
Percentage of residents with advance directives			X					X			X	
Number of residents who are long-stay	X	X					X	X				
Percentage of residents who are long-stay			X						X	X	X	
Percentage of Medicare Advantage residents	X	X	X		X				X	X	X	
Health inspection rating												
Staffing rating												
Overall rating	X	X	X	X	X		X	X	X	X	X	X
Quality rating	X	X	X		X	X	X		X	X	X	
Occupancy rate												
For-profit status	X										X	
Rural											X	
Distinct-part facility (hospital-based)												

NOTES: Pennsylvania Group A Model includes a squared term of total CNA hours per resident per day and total LPN/LVN + RN hours per resident per day. Pennsylvania Group B model includes a squared term of all-cause hospitalization rate (per 1,000 person-days).

SOURCE: RTI Analysis of Medicare Claims, MDS, Nursing Home Compare and CASPER Data

Table C-2
Characteristics of ECCP facilities and matched comparison facilities, All States Combined, Group A

Characteristic	ECCP		Matched Comparison		*P-value* for difference
	Mean	*(SD)*	*Mean*	*(SD)*	
All-cause hospitalization rate (per 1,000 person-days)	1.38	0.59	1.49	0.68	0.080
Potentially avoidable hospitalization rate (per 1,000 person-days)	**0.50**	**0.25**	**0.56**	**0.31**	**0.047**
Number of occupied beds	132.63	60.62	131.38	87.93	0.863
Total CNA hours per resident per day	2.44	0.49	2.45	0.49	0.890
Total LPN/LVN hours per resident per day	0.86	0.33	0.89	0.34	0.285
Total RN hours per resident per day	**0.82**	**0.32**	**0.71**	**0.30**	**<.001**
Total LPN/LVN + RN hours per resident per day	1.68	0.40	1.60	0.46	0.086
Total CNA+ LPN/LVN + RN hours per resident per day	4.12	0.71	4.05	0.75	0.364
Case-mix acuity index	11.60	1.06	11.67	1.11	0.480
Percentage of residents with dementia	49.80	15.10	51.66	14.86	0.227
Percentage of residents age < 65	13.60	11.79	12.38	10.29	0.293
Percentage of residents who are nonwhite	17.87	20.93	18.43	22.88	0.801
Percentage of residents who are Hispanic	3.03	5.97	3.14	8.67	0.880
Percentage of residents with advance directives	56.01	34.04	56.04	35.93	0.993
Number of residents who are long-stay	114.80	53.21	113.72	77.19	0.865
Percentage of residents who are long-stay	86.60	7.08	87.18	9.08	0.469
Percentage of Medicare Advantage residents	17.31	14.09	17.21	14.91	0.943
Health inspection rating	3.42	0.99	3.50	1.06	0.403
Staffing rating	**3.33**	**1.02**	**3.05**	**1.10**	**0.010**
Overall rating	3.96	1.01	3.94	1.04	0.894
Quality rating	3.87	1.26	3.77	1.30	0.438
Occupancy rate	82.31	14.65	83.42	13.04	0.439
For-profit status, %	65.97	—	60.76	—	0.292
Rural, %	29.17	—	25.00	—	0.354
Distinct-part facility (hospital-based), %	0.69	—	3.47	—	0.084
N (Facilities)	144		288		—

NOTES: We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_grp_chars_print_av11_facility_characteristics_unctrd_grp)

Table C-3
Characteristics of ECCP facilities and matched comparison facilities, All States Combined, Group B

Characteristic	ECCP Mean	ECCP (SD)	Matched Comparison Mean	Matched Comparison (SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)	1.54	0.65	1.48	0.63	0.490
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.49	0.24	0.53	0.29	0.196
Number of occupied beds	177.09	132.90	148.31	126.60	0.065
Total CNA hours per resident per day	2.40	0.58	2.32	0.54	0.272
Total LPN/LVN hours per resident per day	0.82	0.42	0.83	0.28	0.871
Total RN hours per resident per day	**0.82**	**0.38**	**0.69**	**0.28**	**0.002**
Total LPN/LVN + RN hours per resident per day	1.61	0.55	1.52	0.40	0.105
Total CNA+ LPN/LVN + RN hours per resident per day	4.01	0.73	3.84	0.78	0.053
Case-mix acuity index	12.01	1.18	11.81	1.05	0.137
Percentage of residents with dementia	46.92	17.31	48.23	14.70	0.502
Percentage of residents age < 65	18.53	15.34	16.98	12.91	0.373
Percentage of residents who are nonwhite	28.07	27.79	25.23	27.37	0.388
Percentage of residents who are Hispanic	4.42	10.57	4.65	9.20	0.851
Percentage of residents with advance directives	46.69	33.26	48.51	34.86	0.650
Number of residents who are long-stay	151.50	121.70	129.70	114.43	0.124
Percentage of residents who are long-stay	**84.25**	**11.51**	**87.76**	**9.59**	**0.007**
Percentage of Medicare Advantage residents	18.37	13.40	16.15	14.34	0.173
Health inspection rating	2.93	1.25	3.00	1.24	0.635
Staffing rating	**3.09**	**1.10**	**2.79**	**1.16**	**0.023**
Overall rating	3.50	1.32	3.44	1.36	0.701
Quality rating	3.85	1.30	3.89	1.29	0.785
Occupancy rate	83.79	12.77	80.89	15.80	0.079
For-profit status, %	63.55	—	66.82	—	0.560
Rural, %	**12.15**	—	**27.57**	—	**0.002**
Distinct-part facility (hospital-based), %	0.93	—	1.40	—	0.722
N (Facilities)	107		214		—

NOTES: We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_grp_chars_print_av11_facility_characteristics_unctrd_grp)

Table C-4
Characteristics of ECCP facilities and matched comparison facilities, All States Combined (except Nevada, Colorado and Texas), Group A

Characteristic	ECCP		Matched Comparison		P-value for difference
	Mean	*(SD)*	*Mean*	*(SD)*	
All-cause hospitalization rate (per 1,000 person-days)	1.45	0.58	1.45	0.69	0.965
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.53	0.24	0.53	0.31	0.954
Number of occupied beds	137.56	63.95	132.01	90.38	0.499
Total CNA hours per resident per day	2.46	0.50	2.47	0.49	0.978
Total LPN/LVN hours per resident per day	0.90	0.31	0.88	0.33	0.472
Total RN hours per resident per day	0.76	0.27	0.73	0.28	0.315
Total LPN/LVN + RN hours per resident per day	1.66	0.41	1.61	0.45	0.234
Total CNA+ LPN/LVN + RN hours per resident per day	4.13	0.72	4.07	0.76	0.505
Case-mix acuity index	11.62	1.10	11.53	1.07	0.463
Percentage of residents with dementia	50.53	14.31	50.44	13.95	0.954
Percentage of residents age < 65	13.66	11.87	12.44	10.63	0.338
Percentage of residents who are nonwhite	18.33	22.02	17.18	22.97	0.641
Percentage of residents who are Hispanic	2.08	5.45	1.69	4.00	0.492
Percentage of residents with advance directives	53.50	32.74	58.08	35.88	0.223
Number of residents who are long-stay	119.69	55.68	113.59	78.62	0.393
Percentage of residents who are long-stay	87.27	6.84	86.84	9.29	0.615
Percentage of Medicare Advantage residents	16.68	13.41	17.33	15.52	0.677
Health inspection rating	3.48	0.97	3.53	1.06	0.685
Staffing rating	3.23	1.03	3.17	1.04	0.616
Overall rating	3.97	1.01	4.00	0.99	0.797
Quality rating	3.80	1.30	3.74	1.29	0.712
Occupancy rate	83.14	15.04	84.27	13.46	0.483
For-profit status, %	60.66	—	59.02	—	0.763
Rural, %	30.33	—	27.05	—	0.511
Distinct-part facility (hospital-based), %	0.82	—	4.10	—	0.083
N (Facilities)	122		244		—

NOTES: We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_grp_chars_print_av11_facility_characteristics_unctrd_excp)

Table C-5
Characteristics of ECCP facilities and matched comparison facilities, All States Combined (except Nevada, Colorado and Texas), Group B

Characteristic	ECCP		Matched Comparison		P-value for difference
	Mean	*(SD)*	*Mean*	*(SD)*	
All-cause hospitalization rate (per 1,000 person-days)	1.49	0.63	1.47	0.64	0.805
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.49	0.25	0.52	0.30	0.381
Number of occupied beds	183.07	139.28	153.21	133.03	0.087
Total CNA hours per resident per day	2.41	0.60	2.33	0.55	0.289
Total LPN/LVN hours per resident per day	0.81	0.42	0.81	0.28	0.952
Total RN hours per resident per day	**0.80**	**0.39**	**0.70**	**0.28**	**0.024**
Total LPN/LVN + RN hours per resident per day	1.59	0.57	1.51	0.41	0.255
Total CNA+ LPN/LVN + RN hours per resident per day	3.99	0.75	3.84	0.81	0.115
Case-mix acuity index	11.95	1.10	11.83	1.08	0.383
Percentage of residents with dementia	49.16	16.82	47.63	14.72	0.454
Percentage of residents age < 65	18.02	15.63	17.42	13.38	0.752
Percentage of residents who are nonwhite	28.69	29.14	25.37	28.33	0.365
Percentage of residents who are Hispanic	4.31	11.22	4.08	8.47	0.866
Percentage of residents with advance directives	47.93	33.12	51.86	34.59	0.356
Number of residents who are long-stay	159.24	126.15	134.19	120.29	0.112
Percentage of residents who are long-stay	86.37	7.84	87.97	9.23	0.131
Percentage of Medicare Advantage residents	18.73	13.56	16.57	14.92	0.224
Health inspection rating	2.90	1.28	2.97	1.27	0.692
Staffing rating	3.05	1.13	2.82	1.22	0.120
Overall rating	3.48	1.34	3.41	1.39	0.710
Quality rating	3.94	1.28	3.90	1.30	0.819
Occupancy rate	84.41	12.82	82.43	15.39	0.256
For-profit status, %	59.57	—	65.43	—	0.336
Rural, %	**12.77**	**—**	**28.72**	**—**	**0.003**
Distinct-part facility (hospital-based), %	1.06	—	1.60	—	0.722
N (Facilities)	94		188		—

NOTES: We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_grp_chars_print_av11_facility_characteristics_unctrd_excp)

Table C-6
Characteristics of ECCP facilities and matched comparison facilities, Alabama, Group A

Characteristic	ECCP Mean	ECCP (SD)	Matched Comparison Mean	Matched Comparison (SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)*	1.53	0.56	1.61	0.67	0.588
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.56	0.21	0.68	0.39	0.118
Number of occupied beds*	105.59	32.64	99.09	33.76	0.455
Total CNA hours per resident per day*	2.68	0.54	2.74	0.44	0.652
Total LPN/LVN hours per resident per day	0.97	0.24	1.05	0.37	0.292
Total RN hours per resident per day	0.72	0.26	0.62	0.22	0.122
Total LPN/LVN + RN hours per resident per day*	1.69	0.22	1.67	0.43	0.796
Total CNA+ LPN/LVN + RN hours per resident per day	4.38	0.64	4.42	0.66	0.817
Case-mix acuity index*	12.14	1.01	12.09	0.92	0.847
Percentage of residents with dementia*	53.87	14.59	52.51	15.27	0.728
Percentage of residents age < 65*	17.73	6.65	19.06	9.43	0.511
Percentage of residents who are nonwhite*	28.49	18.53	30.06	25.94	0.779
Percentage of residents who are Hispanic	0.31	0.54	0.07	0.30	0.065
Percentage of residents with advance directives	33.42	17.55	29.78	27.48	0.517
Number of residents who are long-stay*	94.82	27.98	89.39	29.83	0.471
Percentage of residents who are long-stay	90.30	5.30	90.73	5.77	0.768
Percentage of Medicare Advantage residents*	6.68	6.50	5.99	8.91	0.722
Health inspection rating	3.18	0.91	3.34	1.20	0.550
Staffing rating	3.86	0.71	3.57	0.76	0.127
Overall rating*	4.00	1.02	3.95	1.08	0.868
Quality rating*	3.95	1.29	3.80	1.25	0.636
Occupancy rate	85.54	9.86	87.48	8.88	0.442
For-profit status, %*	86.36	—	88.64	—	0.790
Rural, %	50.00	—	45.45	—	0.727
Distinct-part facility (hospital-based), %	0.00	—	4.55	—	0.310
N (Facilities)	22		44		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-7

Characteristics of ECCP facilities and matched comparison facilities, Alabama, Group B

Characteristic	ECCP Mean	ECCP (SD)	Matched Comparison Mean	Matched Comparison (SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)*	1.61	0.48	1.59	0.66	0.924
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.61	0.22	0.70	0.38	0.286
Number of occupied beds	132.75	29.87	132.20	37.08	0.951
Total CNA hours per resident per day*	2.76	0.53	2.70	0.59	0.677
Total LPN/LVN hours per resident per day	0.93	0.33	0.99	0.31	0.490
Total RN hours per resident per day	0.85	0.61	0.64	0.16	0.143
Total LPN/LVN + RN hours per resident per day*	1.63	0.37	1.63	0.34	0.972
Total CNA+ LPN/LVN + RN hours per resident per day	4.40	0.80	4.33	0.79	0.761
Case-mix acuity index*	12.08	0.70	12.06	0.90	0.958
Percentage of residents with dementia*	52.30	11.92	49.13	12.44	0.344
Percentage of residents age < 65*	17.76	10.31	19.48	10.68	0.549
Percentage of residents who are nonwhite*	25.08	21.71	24.75	21.62	0.956
Percentage of residents who are Hispanic	0.19	0.42	0.19	0.35	0.995
Percentage of residents with advance directives	42.12	27.60	36.41	26.47	0.449
Number of residents who are long-stay*	115.70	24.98	116.00	33.18	0.969
Percentage of residents who are long-stay	87.57	6.47	88.08	6.37	0.776
Percentage of Medicare Advantage residents*	11.00	10.20	9.77	11.39	0.674
Health inspection rating	2.50	1.19	2.53	1.24	0.940
Staffing rating	3.75	0.97	3.58	0.81	0.491
Overall rating*	3.30	1.26	3.23	1.27	0.830
Quality rating*	3.70	1.22	3.53	1.38	0.618
Occupancy rate	85.84	8.74	84.75	9.56	0.660
For-profit status, %	95.00	—	87.50	—	0.361
Rural, %	35.00	—	35.00	—	1.000
Distinct-part facility (hospital-based), %	0.00	—	0.00	—	—
N (Facilities)	20		40		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-8
Characteristics of ECCP facilities and matched comparison facilities, Indiana, Group A

Characteristic	ECCP		Matched Comparison		P-value for difference
	Mean	*(SD)*	*Mean*	*(SD)*	
All-cause hospitalization rate (per 1,000 person-days)*	1.36	0.45	1.38	0.62	0.892
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.54	0.25	0.49	0.26	0.409
Number of occupied beds*	110.74	18.48	109.07	28.76	0.771
Total CNA hours per resident per day*	2.42	0.52	2.41	0.52	0.937
Total LPN/LVN hours per resident per day*	0.94	0.35	1.02	0.37	0.378
Total RN hours per resident per day*	0.97	0.25	0.95	0.29	0.745
Total LPN/LVN + RN hours per resident per day	1.91	0.50	1.97	0.52	0.651
Total CNA+ LPN/LVN + RN hours per resident per day	4.33	0.67	4.38	0.89	0.803
Case-mix acuity index*	11.56	0.88	11.55	1.11	0.976
Percentage of residents with dementia	48.69	15.86	48.12	15.27	0.886
Percentage of residents age < 65*	12.11	11.90	13.84	12.99	0.583
Percentage of residents who are nonwhite*	9.80	9.18	12.05	14.60	0.438
Percentage of residents who are Hispanic	0.71	0.97	0.59	0.89	0.612
Percentage of residents with advance directives*	63.97	42.27	64.39	39.43	0.969
Number of residents who are long-stay	95.30	19.31	93.11	27.80	0.704
Percentage of residents who are long-stay*	85.83	8.12	85.11	9.13	0.740
Percentage of Medicare Advantage residents*	14.44	10.66	15.16	12.08	0.801
Health inspection rating	3.57	0.84	3.43	0.89	0.554
Staffing rating	3.70	0.82	3.54	0.86	0.479
Overall rating*	4.22	0.90	4.17	0.82	0.847
Quality rating*	3.96	1.36	3.93	1.24	0.949
Occupancy rate	67.68	18.01	73.98	14.92	0.157
For-profit status, %	17.39	—	34.78	—	0.133
Rural, %	43.48	—	28.26	—	0.206
Distinct-part facility (hospital-based), %	0.00	—	0.00	—	—
N (Facilities)	23		46		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-9

Characteristics of ECCP facilities and matched comparison facilities, Indiana, Group B

Characteristic	ECCP		Matched Comparison		P-value for difference
	Mean	*(SD)*	*Mean*	*(SD)*	
All-cause hospitalization rate (per 1,000 person-days)*	1.42	0.53	1.41	0.67	0.961
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.52	0.25	0.52	0.26	0.942
Number of occupied beds	**119.94**	**31.71**	**70.71**	**23.23**	**<.001**
Total CNA hours per resident per day	2.34	0.67	2.52	0.57	0.359
Total LPN/LVN hours per resident per day	0.88	0.21	0.88	0.27	0.941
Total RN hours per resident per day	1.12	0.24	0.98	0.31	0.093
Total LPN/LVN + RN hours per resident per day	2.00	0.33	1.86	0.47	0.222
Total CNA+ LPN/LVN + RN hours per resident per day*	4.34	0.76	4.38	0.80	0.877
Case-mix acuity index*	12.18	0.84	12.04	0.91	0.600
Percentage of residents with dementia	57.42	16.91	51.94	15.77	0.273
Percentage of residents age < 65*	16.38	14.68	13.49	13.37	0.500
Percentage of residents who are nonwhite	**30.65**	**24.63**	**11.02**	**17.97**	**0.007**
Percentage of residents who are Hispanic	0.67	0.98	0.67	1.22	0.992
Percentage of residents with advance directives	**29.29**	**40.03**	**57.23**	**41.50**	**0.027**
Number of residents who are long-stay	**101.12**	**29.30**	**62.74**	**21.22**	**<.001**
Percentage of residents who are long-stay	**83.74**	**7.67**	**89.01**	**8.47**	**0.032**
Percentage of Medicare Advantage residents	16.50	12.27	12.11	9.53	0.207
Health inspection rating	**2.71**	**0.92**	**3.44**	**1.08**	**0.015**
Staffing rating	3.41	0.80	3.59	1.05	0.507
Overall rating*	4.00	0.87	4.09	1.11	0.757
Quality rating	4.59	0.94	4.00	1.46	0.089
Occupancy rate	79.01	13.52	71.56	17.68	0.103
For-profit status, %	11.76	—	20.59	—	0.436
Rural, %	**0.00**	**—**	**50.00**	**—**	**<.001**
Distinct-part facility (hospital-based), %	0.00	—	0.00	—	—
N (Facilities)	17		34		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-10

Characteristics of ECCP facilities and matched comparison facilities, Missouri, Group A

Characteristic	ECCP Mean	ECCP (SD)	Matched Comparison Mean	Matched Comparison (SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)*	1.47	0.64	1.51	0.68	0.790
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.59	0.20	0.61	0.34	0.828
Number of occupied beds	**108.46**	**28.38**	**79.08**	**31.74**	**<.001**
Total CNA hours per resident per day	2.33	0.39	2.45	0.42	0.232
Total LPN/LVN hours per resident per day	0.76	0.25	0.70	0.24	0.333
Total RN hours per resident per day	0.57	0.19	0.58	0.21	0.871
Total LPN/LVN + RN hours per resident per day	1.33	0.31	1.28	0.35	0.519
Total CNA+ LPN/LVN + RN hours per resident per day*	3.66	0.52	3.73	0.58	0.612
Case-mix acuity index*	10.79	1.17	10.83	1.03	0.884
Percentage of residents with dementia*	47.16	15.57	47.34	11.86	0.960
Percentage of residents age < 65*	14.90	16.69	12.56	9.23	0.528
Percentage of residents who are nonwhite*	9.39	8.38	7.75	13.49	0.529
Percentage of residents who are Hispanic	0.50	0.83	0.30	0.63	0.299
Percentage of residents with advance directives	47.47	36.65	60.81	33.40	0.141
Number of residents who are long-stay	**96.67**	**24.36**	**71.35**	**29.36**	**<.001**
Percentage of residents who are long-stay	89.39	5.23	90.27	6.56	0.541
Percentage of Medicare Advantage residents*	11.00	9.28	12.65	10.17	0.494
Health inspection rating	3.46	1.02	3.67	0.97	0.412
Staffing rating	3.13	1.08	3.25	0.76	0.614
Overall rating*	3.83	1.13	3.96	0.94	0.643
Quality rating*	3.50	1.32	3.27	1.40	0.499
Occupancy rate	74.77	12.71	75.70	14.18	0.779
For-profit status, %	79.17	—	75.00	—	0.695
Rural, %	45.83	—	41.67	—	0.736
Distinct-part facility (hospital-based), %	0.00	—	0.00	—	—
N (Facilities)	24		48		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-11

Characteristics of ECCP facilities and matched comparison facilities, Missouri, Group B

Characteristic	ECCP Mean	(SD)	Matched Comparison Mean	(SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)*	1.29	0.44	1.24	0.49	0.697
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.44	0.25	0.44	0.20	0.926
Number of occupied beds	**149.06**	**45.60**	**76.78**	**35.66**	**<.001**
Total CNA hours per resident per day	**2.72**	**0.49**	**2.41**	**0.42**	**0.038**
Total LPN/LVN hours per resident per day	**0.60**	**0.14**	**0.75**	**0.24**	**0.008**
Total RN hours per resident per day	0.58	0.18	0.60	0.26	0.739
Total LPN/LVN + RN hours per resident per day	1.18	0.24	1.35	0.39	0.064
Total CNA+ LPN/LVN + RN hours per resident per day*	3.90	0.54	3.76	0.61	0.432
Case-mix acuity index*	11.18	0.66	11.20	1.15	0.928
Percentage of residents with dementia*	43.59	11.60	46.78	16.13	0.438
Percentage of residents age < 65*	16.37	13.96	16.17	16.59	0.966
Percentage of residents who are nonwhite*	16.15	23.34	15.62	24.16	0.942
Percentage of residents who are Hispanic	0.42	0.64	0.57	0.86	0.480
Percentage of residents with advance directives	**29.97**	**22.67**	**51.94**	**35.91**	**0.013**
Number of residents who are long-stay	**126.19**	**44.96**	**69.19**	**33.24**	**<.001**
Percentage of residents who are long-stay	**84.22**	**10.49**	**90.57**	**8.68**	**0.047**
Percentage of Medicare Advantage residents	**18.99**	**10.56**	**12.14**	**10.74**	**0.044**
Health inspection rating	3.13	1.36	3.00	1.16	0.756
Staffing rating	3.25	0.86	3.34	0.97	0.735
Overall rating	3.63	1.26	3.66	1.33	0.937
Quality rating*	3.94	1.34	3.78	1.31	0.704
Occupancy rate	73.34	14.96	72.95	14.80	0.933
For-profit status, %	87.50	—	78.13	—	0.433
Rural, %	**6.25**	**—**	**43.75**	**—**	**0.008**
Distinct-part facility (hospital-based), %	0.00	—	0.00	—	—
N (Facilities)	16		32		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-12

Characteristics of ECCP facilities and matched comparison facilities, Colorado, Group A

Characteristic	ECCP (Colorado)		Matched Comparison (Texas)		P-value for difference
	Mean	*(SD)*	*Mean*	*(SD)*	
All-cause hospitalization rate (per 1,000 person-days)*	**0.95**	**0.45**	**1.70**	**0.63**	**<.001**
Potentially avoidable hospitalization rate (per 1,000 person-days)	**0.34**	**0.25**	**0.69**	**0.27**	**<.001**
Number of occupied beds	105.32	23.11	127.86	73.64	0.069
Total CNA hours per resident per day	2.31	0.45	2.35	0.49	0.759
Total LPN/LVN hours per resident per day	**0.59**	**0.27**	**0.97**	**0.37**	**<.001**
Total RN hours per resident per day	**1.16**	**0.39**	**0.61**	**0.41**	**<.001**
Total LPN/LVN + RN hours per resident per day	1.75	0.33	1.58	0.55	0.112
Total CNA+ LPN/LVN + RN hours per resident per day*	4.06	0.62	3.93	0.75	0.432
Case-mix acuity index*	**11.48**	**0.81**	**12.48**	**0.94**	**<.001**
Percentage of residents with dementia	**45.76**	**18.78**	**58.43**	**17.86**	**0.012**
Percentage of residents age < 65*	13.27	11.63	12.08	8.27	0.670
Percentage of residents who are nonwhite*	**15.34**	**13.42**	**25.38**	**21.35**	**0.023**
Percentage of residents who are Hispanic	8.31	6.14	11.13	18.29	0.359
Percentage of residents with advance directives	**69.92**	**38.41**	**44.72**	**34.47**	**0.013**
Number of residents who are long-stay*	**87.68**	**22.47**	**114.39**	**69.50**	**0.024**
Percentage of residents who are long-stay	**82.87**	**7.35**	**89.04**	**7.65**	**0.003**
Percentage of Medicare Advantage residents	20.85	17.34	16.54	11.04	0.297
Health inspection rating	3.05	1.05	3.36	1.10	0.259
Staffing rating	**3.86**	**0.77**	**2.36**	**1.18**	**<.001**
Overall rating*	3.91	1.02	3.66	1.26	0.390
Quality rating*	4.27	0.88	3.91	1.31	0.187
Occupancy rate	77.70	11.53	78.75	9.18	0.714
For-profit status, %	**95.45**	**—**	**70.45**	**—**	**0.019**
Rural, %	22.73	—	13.64	—	0.350
Distinct-part facility (hospital-based), %	0.00	—	0.00	—	—
N (Facilities)	22		44		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-13
Characteristics of ECCP facilities and matched comparison facilities, Nevada, Group B

Characteristic	ECCP (Nevada)		Matched Comparison (Texas)		P-value for difference
	Mean	*(SD)*	*Mean*	*(SD)*	
All-cause hospitalization rate (per 1,000 person-days)*	1.89	0.67	1.60	0.57	0.193
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.50	0.17	0.61	0.21	0.082
Number of occupied beds	133.85	58.03	112.85	51.76	0.282
Total CNA hours per resident per day	2.35	0.42	2.31	0.42	0.781
Total LPN/LVN hours per resident per day	0.85	0.44	0.93	0.29	0.558
Total RN hours per resident per day	**0.95**	**0.27**	**0.61**	**0.24**	**<.001**
Total LPN/LVN + RN hours per resident per day	1.80	0.41	1.54	0.32	0.056
Total CNA+ LPN/LVN + RN hours per resident per day*	4.15	0.58	3.85	0.52	0.124
Case-mix acuity index*	12.43	1.64	11.65	0.85	0.124
Percentage of residents with dementia	**30.70**	**11.37**	**52.58**	**14.10**	**<.001**
Percentage of residents age < 65*	**22.17**	**12.91**	**13.80**	**8.27**	**0.048**
Percentage of residents who are nonwhite*	23.60	14.74	24.22	19.50	0.912
Percentage of residents who are Hispanic	5.28	3.21	8.74	12.82	0.205
Percentage of residents with advance directives*	37.77	34.24	24.31	26.69	0.229
Number of residents who are long-stay*	95.46	60.22	97.27	45.60	0.925
Percentage of residents who are long-stay	**68.90**	**20.06**	**86.26**	**12.01**	**0.011**
Percentage of Medicare Advantage residents	15.80	12.32	13.17	8.75	0.499
Health inspection rating	3.15	0.99	3.27	1.00	0.735
Staffing rating	**3.38**	**0.87**	**2.54**	**0.58**	**0.005**
Overall rating*	3.69	1.18	3.65	1.13	0.923
Quality rating	3.23	1.36	3.85	1.29	0.189
Occupancy rate	**79.34**	**12.00**	**69.78**	**14.39**	**0.037**
For-profit status, %	92.31	—	76.92	—	0.238
Rural, %	7.69	—	19.23	—	0.346
Distinct-part facility (hospital-based), %	0.00	—	0.00	—	—
N (Facilities)	13		26		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-14

Characteristics of ECCP facilities and matched comparison facilities, New York, Group A

Characteristic	ECCP Mean	ECCP (SD)	Matched Comparison Mean	Matched Comparison (SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)*	1.33	0.58	1.25	0.69	0.583
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.41	0.18	0.41	0.24	0.947
Number of occupied beds*	201.79	85.09	203.92	113.88	0.917
Total CNA hours per resident per day*	2.63	0.44	2.53	0.47	0.283
Total LPN/LVN hours per resident per day	**1.04**	**0.32**	**0.86**	**0.29**	**0.009**
Total RN hours per resident per day*	0.71	0.24	0.69	0.28	0.810
Total LPN/LVN + RN hours per resident per day	**1.75**	**0.41**	**1.56**	**0.38**	**0.027**
Total CNA+ LPN/LVN + RN hours per resident per day	**4.38**	**0.77**	**4.08**	**0.76**	**0.071**
Case-mix acuity index*	11.89	1.08	11.76	1.03	0.586
Percentage of residents with dementia	54.18	9.39	53.78	13.87	0.865
Percentage of residents age < 65*	12.17	11.21	8.64	8.20	0.115
Percentage of residents who are nonwhite*	23.57	29.01	20.09	25.60	0.561
Percentage of residents who are Hispanic	5.93	9.37	4.47	6.27	0.424
Percentage of residents with advance directives	65.36	26.44	71.11	29.23	0.329
Number of residents who are long-stay	172.94	76.45	169.52	97.81	0.849
Percentage of residents who are long-stay*	84.99	6.53	83.39	12.27	0.400
Percentage of Medicare Advantage residents*	23.21	15.21	24.50	18.42	0.713
Health inspection rating	3.55	1.00	3.47	1.11	0.734
Staffing rating	2.97	1.07	2.88	1.25	0.708
Overall rating*	3.91	1.01	3.91	1.06	1.000
Quality rating*	3.85	1.30	4.00	1.23	0.580
Occupancy rate	93.40	7.10	90.93	9.52	0.152
For-profit status, %	60.61	—	45.45	—	0.155
Rural, %	3.03	—	10.61	—	0.192
Distinct-part facility (hospital-based), %	3.03	—	10.61	—	0.192
N (Facilities)	33		66		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-15
Characteristics of ECCP facilities and matched comparison facilities, New York, Group B

Characteristic	ECCP Mean	ECCP (SD)	Matched Comparison Mean	Matched Comparison (SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)*	1.71	0.81	1.73	0.61	0.893
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.49	0.26	0.50	0.23	0.911
Number of occupied beds*	285.23	214.16	287.27	184.90	0.967
Total CNA hours per resident per day*	2.13	0.59	2.08	0.45	0.721
Total LPN/LVN hours per resident per day*	0.81	0.65	0.68	0.26	0.349
Total RN hours per resident per day*	0.75	0.34	0.65	0.27	0.227
Total LPN/LVN + RN hours per resident per day	1.55	0.84	1.33	0.37	0.212
Total CNA+ LPN/LVN + RN hours per resident per day	3.68	0.70	3.42	0.70	0.121
Case-mix acuity index*	12.02	1.59	12.08	1.29	0.879
Percentage of residents with dementia	44.30	21.12	46.53	15.63	0.637
Percentage of residents age < 65*	19.38	22.18	20.02	14.40	0.893
Percentage of residents who are nonwhite*	48.36	35.52	49.99	31.66	0.844
Percentage of residents who are Hispanic	14.60	17.75	12.75	12.14	0.634
Percentage of residents with advance directives	64.96	23.80	55.21	28.46	0.116
Number of residents who are long-stay	247.12	194.45	249.62	173.30	0.956
Percentage of residents who are long-stay*	85.80	7.46	85.77	12.89	0.988
Percentage of Medicare Advantage residents*	22.01	17.08	22.83	18.21	0.846
Health inspection rating	3.58	1.30	3.52	1.16	0.849
Staffing rating	2.54	1.21	2.04	1.01	0.076
Overall rating*	3.88	1.40	3.75	1.30	0.683
Quality rating*	4.38	0.98	4.42	0.94	0.869
Occupancy rate	92.63	7.02	90.36	13.64	0.334
For-profit status, %	46.15	—	67.31	—	0.072
Rural, %	0.00	—	5.77	—	0.212
Distinct-part facility (hospital-based), %	3.85	—	5.77	—	0.717
N (Facilities)	26		52		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.
SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-16
Characteristics of ECCP facilities and matched comparison facilities, Pennsylvania, Group A

Characteristic	ECCP Mean	ECCP (SD)	Matched Comparison Mean	Matched Comparison (SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)*	1.66	0.64	1.60	0.72	0.724
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.62	0.29	0.55	0.28	0.395
Number of occupied beds*	132.50	31.43	139.48	108.45	0.708
Total CNA hours per resident per day*	2.16	0.43	2.14	0.43	0.878
Total LPN/LVN hours per resident per day	0.74	0.26	0.77	0.26	0.638
Total RN hours per resident per day	0.85	0.25	0.82	0.21	0.580
Total LPN/LVN + RN hours per resident per day*	1.59	0.30	1.59	0.22	0.981
Total CNA+ LPN/LVN + RN hours per resident per day	3.75	0.63	3.73	0.54	0.903
Case-mix acuity index*	11.66	0.86	11.34	0.84	0.175
Percentage of residents with dementia*	47.01	16.36	49.06	12.37	0.625
Percentage of residents age < 65*	11.95	10.23	9.66	10.60	0.425
Percentage of residents who are nonwhite*	19.05	27.44	15.40	25.33	0.621
Percentage of residents who are Hispanic	1.12	1.71	1.84	3.58	0.298
Percentage of residents with advance directives*	51.21	26.82	57.19	37.12	0.479
Number of residents who are long-stay	114.85	28.80	122.20	104.60	0.681
Percentage of residents who are long-stay*	86.83	7.60	86.14	6.83	0.733
Percentage of Medicare Advantage residents*	26.29	11.79	26.09	14.54	0.956
Health inspection rating	3.65	1.09	3.78	1.05	0.674
Staffing rating	2.55	0.83	2.70	1.09	0.555
Overall rating*	3.90	1.02	4.03	1.03	0.658
Quality rating*	3.70	1.30	3.60	1.28	0.779
Occupancy rate	91.38	6.12	91.85	5.50	0.771
For-profit status, %*	60.00	—	57.50	—	0.853
Rural, %*	20.00	—	15.00	—	0.624
Distinct-part facility (hospital-based), %	0.00	—	2.50	—	0.476
N (Facilities)	20		40		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. Pennsylvania Group A Model includes an additional squared term of total CNA hours per resident per day and total LPN/LVN + RN hours per resident per day. We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.

SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

Table C-17

Characteristics of ECCP facilities and matched comparison facilities, Pennsylvania, Group B

Characteristic	ECCP Mean	ECCP (SD)	Matched Comparison Mean	Matched Comparison (SD)	P-value for difference
All-cause hospitalization rate (per 1,000 person-days)*	1.24	0.67	1.16	0.59	0.700
Potentially avoidable hospitalization rate (per 1,000 person-days)	0.38	0.21	0.42	0.30	0.552
Number of occupied beds	180.93	114.95	123.90	45.05	0.082
Total CNA hours per resident per day	2.15	0.36	1.95	0.30	0.085
Total LPN/LVN hours per resident per day	0.82	0.32	0.79	0.20	0.684
Total RN hours per resident per day	0.73	0.17	0.65	0.21	0.202
Total LPN/LVN + RN hours per resident per day	1.55	0.34	1.44	0.20	0.255
Total CNA+ LPN/LVN + RN hours per resident per day*	3.70	0.57	3.39	0.41	0.077
Case-mix acuity index*	**12.25**	**0.85**	**11.55**	**0.60**	**0.009**
Percentage of residents with dementia	49.99	15.52	43.58	12.38	0.177
Percentage of residents age < 65*	19.64	11.53	15.96	9.95	0.301
Percentage of residents who are nonwhite*	10.54	14.04	10.20	10.93	0.936
Percentage of residents who are Hispanic	**0.21**	**0.31**	**1.87**	**3.61**	**0.018**
Percentage of residents with advance directives	66.43	33.37	60.50	39.37	0.600
Number of residents who are long-stay	166.13	108.38	108.67	40.55	0.065
Percentage of residents who are long-stay	**91.04**	**5.21**	**87.67**	**4.75**	**0.045**
Percentage of Medicare Advantage residents	25.60	10.30	24.55	14.35	0.781
Health inspection rating	2.27	1.16	2.03	1.07	0.520
Staffing rating	2.40	1.12	1.77	0.77	0.063
Overall rating*	2.27	1.22	2.07	1.11	0.599
Quality rating	2.73	1.28	3.50	1.28	0.069
Occupancy rate	86.16	11.98	88.03	9.88	0.606
For-profit status, %	60.00	—	70.00	—	0.502
Rural, %	26.67	—	20.00	—	0.612
Distinct-part facility (hospital-based), %	0.00	—	0.00	—	—
N (Facilities)	15		30		—

NOTES: Variables marked with an asterisk are included in the final propensity score model and used in matching for comparison facilities. Pennsylvania Group B model includes an additional squared term of all-cause hospitalization rate (per 1,000 person-days). We used two-sample t-tests for continuous variables and chi-square tests for binary variables (for-profit status, rural, and distinct-part facility) to compare the values of facility characteristics between ECCP facilities and matched comparison facilities. Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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ECCP = Enhanced Care and Coordination Provider; SD = standard deviation; CNA = certified nursing assistant; LPN/LVN = licensed practical nurse or licensed vocational nurse; RN = registered nurse.
SOURCE: RTI analysis of Medicare claims, MDS, NHC and CASPER data (Program: pah2_stgrp_chars_print_av11_facility_charectrtistics_unctrd)

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APPENDIX D
BASELINE HOSPITALIZATION TREND TABLES AND FY 2016 MEDICARE EXPENDITURES

Tables D-1 through *D-7* present the data underlying *Figures 4-39* through *4-66* in the report. The tables present the average hospitalization rates from FY 2014 to FY 2016 for the two Initiative groups and two comparison groups. These data assess the similarity in trends of hospitalization rates between the Initiative and comparison groups. If hospitalization rate trends are dramatically different between the two groups, our ability to accurately determine the effect of the intervention will be impaired. Thus, examining the hospitalization rate trends will enable us to assess the reasonableness of our difference-in-differences model's assumption.

In *Tables D-8* through *D-15*, we test the statistical significance of the difference in Medicare expenditures in FY16 between the ECCP and matched comparison groups for all-cause hospitalizations, potentially avoidable hospitalizations, all-cause ED visits, and potentially avoidable ED visits. The analysis is done in three ways: (1) all states combined; (2) all states combined except for Nevada, Colorado and their comparison state, Texas; and (3) each state individually.

When all states are combined (*Table D-8*), in both Group A and Group B, there is a statistically significant difference (at the 0.05 level) in expenditures for potentially avoidable ED visits; none of the other expenditure measures considered show statistically significant differences. When Nevada, Colorado, and Texas are excluded from the pool (*Table D-9*), the difference in mean expenditures for both all-cause hospitalizations and potentially avoidable hospitalizations diminishes considerably; the impact on the differences in ED-related expenditures is less noticeable. None of the differences are statistically significant.

The remaining tables show differences between the ECCP and matched comparison groups in expenditure levels, separately for each state. In most states, the differences in mean expenditure levels are relatively small and few of those differences are statistically significant different (at the 0.05 level). Nevada and Colorado, which have comparisons in Texas, stand out as exceptions, where the differences in hospitalization-related expenditures are larger and statistically significant in most cases.

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Table D-1
Medicare utilization rate: Number of events per 1,000 person-days, All States

Characteristic	ECCP			Comparison		
	FY 2014	**FY 2015**	**FY 2016**	**FY 2014**	**FY 2015**	**FY 2016**
Group A						
All-cause hospitalization	1.592	1.639	1.481	1.609	1.662	1.568
Potentially avoidable hospitalization	0.570	0.585	0.544	0.610	0.609	0.594
Group B						
All-cause hospitalization	1.698	1.683	1.623	1.753	1.740	1.599
Potentially avoidable hospitalization	0.549	0.519	0.533	0.624	0.600	0.579

SOURCE: RTI analysis of Medicare claims data (RTI program: PAH2 AV09/ pah2_av09_5).

Table D-2
Medicare utilization rate: Number of events per 1,000 person-days, Alabama

Characteristic	ECCP			Comparison		
	FY 2014	**FY 2015**	**FY 2016**	**FY 2014**	**FY 2015**	**FY 2016**
Group A						
All-cause hospitalization	1.971	1.779	1.625	1.745	1.712	1.681
Potentially avoidable hospitalization	0.784	0.717	0.587	0.687	0.707	0.724
Group B						
All-cause hospitalization	1.576	1.719	1.690	1.663	1.676	1.562
Potentially avoidable hospitalization	0.567	0.621	0.632	0.648	0.683	0.683

SOURCE: RTI analysis of Medicare claims data (RTI program: PAH2 AV09/ pah2_av09_5).

Table D-3
Medicare utilization rate: Number of events per 1,000 person-days, Indiana

Characteristic	ECCP			Comparison		
	FY 2014	**FY 2015**	**FY 2016**	**FY 2014**	**FY 2015**	**FY 2016**
Group A						
All-cause hospitalization	1.380	1.561	1.399	1.392	1.530	1.386
Potentially avoidable hospitalization	0.498	0.602	0.576	0.501	0.544	0.494
Group B						
All-cause hospitalization	1.292	1.311	1.332	1.406	1.353	1.374
Potentially avoidable hospitalization	0.408	0.420	0.500	0.536	0.525	0.531

SOURCE: RTI analysis of Medicare claims data (RTI program: PAH2 AV09/ pah2_av09_5).

Table D-4
Medicare utilization rate: Number of events per 1,000 person-days, Missouri

Characteristic	ECCP			Comparison		
	FY 2014	**FY 2015**	**FY 2016**	**FY 2014**	**FY 2015**	**FY 2016**
Group A						
All-cause hospitalization	1.684	1.823	1.546	1.506	1.669	1.551
Potentially avoidable hospitalization	0.667	0.699	0.642	0.656	0.675	0.636
Group B						
All-cause hospitalization	1.620	1.586	1.346	1.553	1.670	1.284
Potentially avoidable hospitalization	0.561	0.567	0.498	0.599	0.612	0.470

SOURCE: RTI analysis of Medicare claims data (RTI program: PAH2 AV09/ pah2_av09_5).

Table D-5
Medicare utilization rate: Number of events per 1,000 person-days, Nevada & Colorado

Characteristic	ECCP			Comparison (TX)		
	FY 2014	FY 2015	FY 2016	FY 2014	FY 2015	FY 2016
Group A (CO)						
All-cause hospitalization	1.036	1.019	1.005	1.788	1.902	1.844
Potentially avoidable hospitalization	0.356	0.335	0.375	0.737	0.674	0.754
Group B (NV)						
All-cause hospitalization	1.838	1.991	1.933	1.762	1.722	1.632
Potentially avoidable hospitalization	0.540	0.550	0.505	0.776	0.665	0.638

SOURCE: RTI analysis of Medicare claims data (RTI program: PAH2 AV09/ pah2_av09_5).

Table D-6
Medicare utilization rate: Number of events per 1,000 person-days, New York

Characteristic	ECCP			Comparison		
	FY 2014	FY 2015	FY 2016	FY 2014	FY 2015	FY 2016
Group A						
All-cause hospitalization	1.695	1.711	1.524	1.519	1.547	1.439
Potentially avoidable hospitalization	0.534	0.545	0.479	0.514	0.512	0.488
Group B						
All-cause hospitalization	2.047	1.942	1.972	2.108	2.031	1.968
Potentially avoidable hospitalization	0.609	0.518	0.587	0.642	0.576	0.595

SOURCE: RTI analysis of Medicare claims data (RTI program: PAH2 AV09/ pah2_av09_5).

Table D-7
Medicare utilization rate: Number of events per 1,000 person-days, Pennsylvania

	ECCP			Comparison		
Characteristic	FY 2014	FY 2015	FY 2016	FY 2014	FY 2015	FY 2016
Group A						
All-cause hospitalization	1.538	1.691	1.635	1.769	1.731	1.657
Potentially avoidable hospitalization	0.563	0.575	0.630	0.671	0.644	0.587
Group B						
All-cause hospitalization	1.480	1.371	1.233	1.415	1.467	1.156
Potentially avoidable hospitalization	0.523	0.414	0.387	0.503	0.498	0.427

SOURCE: RTI analysis of Medicare claims data (RTI program: PAH2 AV09/ pah2_av09_5).

Table D-8
Average Medicare expenditure (in dollars) per beneficiary, FY 2016: Means (standard deviations), All States

	Group A				Group B			
Event	ECCP	Comparison	Difference	*p-value*	ECCP	Comparison	Difference	*p-value*
All-cause hospitalizations	4,644 (14,082)	4,888 (14,323)	−244	0.093	6,165 (18,605)	5,767 (17,037)	398	0.054
Potentially avoidable hospitalizations	1,291 (4,952)	1,393 (5,375)	−102	0.052	1,501 (6,465)	1,447 (5,478)	54	0.436
All-cause ED visits	176 (558)	168 (487)	8	0.129	149 (501)	160 (473)	−10	0.062
Potentially avoidable ED visits	**77 (297)**	**72 (266)**	**6**	**0.044**	**62 (270)**	**68 (256)**	**−6**	**0.037**
N (Residents)	14,697	26,747	—	—	12,212	20,395	—	—

NOTES: Variables included in final propensity score models vary by state and group (A or B). Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims data (RTI program: ev11/pah2_ev11_2)

Table D-9
Average Medicare expenditure (in dollars) per beneficiary, FY 2016: Means (standard deviations), All States Excluding Nevada/Colorado

Event	Group A				Group B			
	ECCP	Comparison	Difference	*p-value*	ECCP	Comparison	Difference	*p-value*
All-cause hospitalizations	4,856 (14,270)	4,895 (14,404)	−39	0.804	5,834 (17,317)	5,948 (17,456)	−113	0.589
Potentially avoidable hospitalizations	1,341 (5,044)	1,369 (5,310)	−28	0.624	1,493 (6,368)	1,464 (5,572)	29	0.689
All-cause ED visits	168 (533)	161 (476)	7	0.201	144 (474)	154 (461)	−10	0.066
Potentially avoidable ED visits	73 (274)	67 (259)	5	0.083	61 (259)	66 (252)	−5	0.094
N (Residents)	12,976	23,042	—	—	11,057	18,233	—	—

NOTES: Variables included in final propensity score models vary by state and group (A or B). Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims data (RTI program: ev11/pah2_ev11_2)

Table D-10
Average Medicare expenditure (in dollars) per beneficiary, FY 2016: Means (standard deviations), Alabama

Event	Group A				Group B			
	ECCP	Comparison	Difference	*p-value*	ECCP	Comparison	Difference	*p-value*
All-cause hospitalizations	3,913 (9,926)	4,233 (11,230)	−321	0.251	**4,247 (10,665)**	**3,648 (9,889)**	**598**	**0.026**
Potentially avoidable hospitalizations	**1,082 (3,717)**	**1,404 (4,949)**	**−322**	**0.004**	1,304 (4,971)	1,230 (3,799)	75	0.530
All-cause ED visits	154 (418)	154 (421)	0	0.987	153 (428)	153 (415)	0	0.997
Potentially avoidable ED visits	65 (220)	68 (215)	−3	0.592	68 (235)	70 (228)	−1	0.834
N (Residents)	2,135	3,951	—	—	2,247	4,598	—	—

NOTES: Variables included in final propensity score models vary by state and group (A or B). Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims data (RTI program: ev11/pah2_ev11_2)

Table D-11

Average Medicare expenditure (in dollars) per beneficiary, FY 2016: Means (standard deviations), Indiana

Event	Group A				Group B			
	ECCP	Comparison	Difference	*p-value*	ECCP	Comparison	Difference	*p-value*
All-cause hospitalizations	3,543 (9,430)	3,573 (9,759)	−30	0.903	3,811 (11,190)	3,831 (12,910)	−20	0.958
Potentially avoidable hospitalizations	**1,247 (4,560)**	**977 (3,708)**	**270**	**0.016**	1,243 (4,873)	1,037 (3,630)	207	0.141
All-cause ED visits	178 (537)	174 (483)	4	0.780	**151 (471)**	**191 (506)**	**−40**	**0.011**
Potentially avoidable ED visits	88 (291)	78 (274)	10	0.187	**68 (266)**	**88 (293)**	**−19**	**0.031**
N (Residents)	2,238	4,279	—	—	1,761	2,113	—	—

NOTES: Variables included in final propensity score models vary by state and group (A or B). Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims data (RTI program: ev11/pah2_ev11_2)

Table D-12

Average Medicare expenditure (in dollars) per beneficiary, FY 2016: Means (standard deviations), Missouri

Event	Group A				Group B			
	ECCP	Comparison	Difference	*p-value*	ECCP	Comparison	Difference	*p-value*
All-cause hospitalizations	3,790 (9,311)	3,693 (10,304)	97	0.719	3,659 (10,429)	3,485 (10,735)	175	0.613
Potentially avoidable hospitalizations	1,314 (3,969)	1,232 (4,076)	82	0.458	1,195 (4,777)	1,061 (4,388)	134	0.374
All-cause ED visits	226 (665)	228 (592)	−2	0.919	151 (541)	172 (478)	−21	0.215
Potentially avoidable ED visits	102 (345)	98 (317)	4	0.652	**57 (248)**	**79 (278)**	**−22**	**0.011**
N (Residents)	2,218	3,234	—	—	1,682	2,119	—	—

NOTES: Variables included in final propensity score models vary by state and group (A or B). Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims data (RTI program:ev11/pah2_ev11_2)

Table D-13
Average Medicare expenditure (in dollars) per beneficiary, FY 2016: Means (standard deviations), Nevada and Colorado

	Group A				Group B			
Event	ECCP (CO)	Comparison (TX)	Difference	*p-value*	ECCP (NV)	Comparison (TX)	Difference	*p-value*
All-cause hospitalizations	**3,046 (12,459)**	**4,847 (13,808)**	**−1,801**	**<.001**	**9,334 (27,900)**	**4,244 (11,797)**	**5,090**	**<.001**
Potentially avoidable hospitalizations	**912 (4,175)**	**1,542 (5,764)**	**−630**	**<.001**	1,578 (7,326)	1,302 (4,604)	275	0.246
All-cause ED visits	233 (720)	208 (554)	25	0.197	202 (709)	207 (565)	−5	0.831
Potentially avoidable ED visits	114 (433)	97 (306)	17	0.133	75 (356)	90 (290)	−14	0.240
N (Residents)	1,721	3,705	—	—	1,155	2,162	—	—

NOTES: Variables included in final propensity score models vary by state and group (A or B). Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims data (RTI program: ev11/pah2_ev11_2)

Table D-14
Average Medicare expenditure (in dollars) per beneficiary, FY 2016: Means (standard deviations), New York

	Group A				Group B			
Event	ECCP	Comparison	Difference	*p-value*	ECCP	Comparison	Difference	*p-value*
All-cause hospitalizations	6,602 (19,574)	5,939 (17,611)	662	0.062	9,639 (24,887)	9,935 (24,636)	−296	0.560
Potentially avoidable hospitalizations	1,464 (6,059)	1,524 (6,399)	−60	0.606	2,137 (8,857)	2,084 (7,543)	53	0.758
All-cause ED visits	**147 (492)**	**127 (423)**	**19**	**0.030**	143 (510)	135 (451)	8	0.420
Potentially avoidable ED visits	**62 (266)**	**51 (240)**	**11**	**0.019**	58 (285)	54 (243)	4	0.470
N (Residents)	4,425	7,843	—	—	3,665	6,812	—	—

NOTES: Variables included in final propensity score models vary by state and group (A or B). Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims data (RTI program: ev11/pah2_ev11_2)

Table D-15

Average Medicare expenditure (in dollars) per beneficiary, FY 2016: Means (standard deviations), Pennsylvania

Event	Group A				Group B			
	ECCP	Comparison	Difference	*p-value*	ECCP	Comparison	Difference	*p-value*
All-cause hospitalizations	**4,646 (12,860)**	**5,955 (16,952)**	**−1,309**	**0.001**	3,982 (13,454)	3,287 (10,025)	695	0.068
Potentially avoidable hospitalizations	1,486 (5,372)	1,575 (5,625)	−89	0.560	907 (3,667)	925 (3,896)	−18	0.881
All-cause ED visits	157 (556)	167 (505)	−10	0.517	**118 (374)**	**162 (504)**	**−44**	**0.001**
Potentially avoidable ED visits	53 (227)	63 (261)	−10	0.148	53 (231)	63 (254)	−10	0.187
N (Residents)	1,960	3,735	—	—	1,702	2,591	—	—

NOTES: Variables included in final propensity score models vary by state and group (A or B). Differences between the ECCP and matched comparison means that are statistically significant at the 0.05 level are bolded.

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SOURCE: RTI analysis of Medicare claims data (RTI program: ev11/pah2_ev11_2)

APPENDIX E
DESCRIPTIVE STATISTICS OF RESIDENT-LEVEL VARIABLES

Table E-1 shows the resident-level characteristics of all states combined. *Tables E-2* through *E-7* show the resident-level characteristics for each ECCP's Group A, Group B, and respective matched comparison group. We used two-sample *t*-tests for continuous variables and chi-square tests for categorical variables to compare the values of resident characteristics within ECCP facilities and comparison facilities after propensity score matching.

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Table E-1
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), All States

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Resident Level:						
Exposure (Initiative-related days)	251.4	248.7	0.048	247.3	251.4	0.008
	(133.0)	(133.0)	—	(134.7)	(133.2)	—
Dual eligible (any episode month)	81.9	79.0	<.001	84.6	83.4	0.003
Age	81.3	81.5	0.082	79.2	79.9	<.001
	(11.8)	(11.5)	—	(12.5)	(12.0)	—
Male	30.6	29.4	0.018	32.6	32.3	0.562
White, non-Hispanic	82.7	82.3	0.332	73.8	75.3	0.003
Black, non-Hispanic	11.6	11.2	0.209	18.0	15.8	<.001
Other race/ethnicity	5.6	6.5	<.001	8.2	8.9	0.042
Any hospice use in 2 months before episode period	1.9	2.2	0.021	1.7	2.2	0.004
HIV/AIDS	0.3	0.1	0.004	1.0	0.3	<.001
Septicemia/shock	13.4	13.2	0.555	14.4	13.6	0.056
Opportunistic Infections	0.5	0.5	0.551	0.6	0.6	0.831
Metastatic cancer and acute leukemia	1.2	1.2	0.734	1.4	1.3	0.837
Lung and other severe cancers	1.2	1.4	0.245	1.3	1.4	0.350
Lymphoma and other cancers	1.4	1.3	0.709	1.4	1.3	0.666
Colorectal, bladder, and other cancers	1.8	1.9	0.324	1.9	1.9	0.930
Breast, prostate, and other cancers and tumors	4.1	4.1	0.875	4.1	4.2	0.691
Diabetes with complications	22.5	23.7	0.006	24.3	24.8	0.321
Diabetes without complications	15.4	15.3	0.647	17.2	16.0	0.006
Protein-calorie malnutrition	9.3	9.7	0.201	11.2	9.7	<.001
Morbid obesity	5.3	5.6	0.189	5.9	5.7	0.362
Other significant endocrine and metabolic disorders	4.8	4.6	0.293	5.0	4.5	0.022
Liver problems	1.8	1.8	0.990	2.2	2.0	0.283
Intestinal obstruction/perforation	4.1	3.9	0.193	4.4	4.1	0.147
Pancreatic disease	0.2	0.3	0.511	0.4	0.3	0.286
Inflammatory bowel disease	1.0	1.0	0.867	0.9	1.1	0.208
Bone/joint/muscle infections/necrosis	3.2	3.1	0.863	4.0	3.5	0.025
Rheumatoid arthritis and inflammatory connective tissue disease	5.3	5.6	0.207	5.2	5.0	0.395
Severe hematological disorders	0.8	0.9	0.726	0.9	0.8	0.352
Disorders of immunity	1.7	1.7	0.848	1.8	1.7	0.511
Coagulation defects & other specified hematological disorders	8.7	8.3	0.251	9.9	8.4	<.001
Schizophrenia	6.6	5.8	<.001	6.7	7.9	<.001
Major depressive, bipolar, and paranoid disorders	18.5	20.4	<.001	22.6	20.8	<.001

(continued)

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), All States

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Quadriplegia	1.4	1.6	0.082	2.1	2.1	0.892
Paraplegia	0.9	0.8	0.569	1.0	0.8	0.075
Spinal Cord Disorders/Injuries	1.3	1.4	0.452	1.2	1.3	0.195
Amyotrophic lateral sclerosis & other motor neuron disease	0.2	0.2	0.631	0.3	0.2	0.029
Cerebral palsy	1.1	1.0	0.281	1.1	1.1	0.789
Myasthenia gravis/myoneural disorders, inflammatory &toxic neuropathy	1.5	1.4	0.452	1.5	1.4	0.361
Muscular dystrophy	0.2	0.1	0.227	0.2	0.1	0.312
Multiple Sclerosis	1.4	1.5	0.792	2.4	1.3	<.001
Parkinson's and Huntington's diseases	8.5	8.0	0.070	7.5	7.7	0.566
Seizure disorders and convulsions	11.8	11.3	0.130	14.5	12.7	<.001
Coma, brain compression/ Anoxic damage	1.3	1.4	0.366	1.7	1.5	0.083
Respirator dependence/ tracheostomy status	1.0	1.3	0.036	2.9	1.6	<.001
Cardio-respiratory failure and shock	11.4	10.7	0.031	11.1	10.7	0.221
Congestive heart failure	32.7	33.2	0.295	33.9	32.3	0.003
Acute myocardial infarction	3.4	3.4	0.810	3.6	3.2	0.032
Unstable angina and other acute ischemic heart disease and angina pectoris/old myocardial infarction	4.5	5.0	0.035	5.3	5.0	0.209
Specified heart arrhythmias	27.9	28.8	0.048	27.3	26.8	0.351
Stroke	15.4	16.4	0.006	18.0	17.1	0.037
Hemiplegia/hemiparesis	8.4	8.7	0.237	9.8	8.1	<.001
Atherosclerosis of extremities with ulceration or gangrene	2.6	3.1	0.009	3.6	3.5	0.663
Vascular disease with complications	4.3	4.1	0.280	4.0	4.1	0.394
Vascular disease	46.7	48.5	<.001	43.3	45.7	<.001
COPD	25.9	25.3	0.198	26.5	25.8	0.153
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, empyema, and lung abscess	7.0	7.0	0.945	7.9	7.0	0.003
Exudative macular degeneration	2.4	2.4	0.621	1.7	1.9	0.129
Dialysis status	2.2	2.1	0.327	3.6	2.9	<.001
Acute Renal Failure	15.5	15.7	0.512	16.4	15.8	0.140
Chronic Kidney Disease, Stage 5	0.8	0.7	0.582	0.8	0.7	0.403
Chronic Kidney Disease, Severe (Stage 4)	1.2	1.2	0.713	1.0	1.2	0.111
Decubitus ulcer of skin	5.3	6.3	<.001	8.1	6.3	<.001

(continued)

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), All States

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Chronic ulcer of skin, except decubitus	6.4	6.6	0.573	7.6	6.7	0.004
Severe skin burn or condition	0.0	0.0	0.988	0.1	0.0	0.187
Severe and Major Head Injury	2.6	2.3	0.045	2.3	2.5	0.381
Hip fracture/dislocation	6.5	6.7	0.488	6.1	6.4	0.285
Complications of specified implanted device or graft	5.1	5.0	0.723	6.1	5.4	0.007
Major organ transplant or replacement status	0.1	0.1	0.871	0.1	0.1	0.881
Artificial openings for feeding or elimination	6.6	5.8	0.002	6.6	5.8	0.002
Amputation status, lower limb/amputation complications	1.4	1.4	0.843	1.4	1.4	0.843
N (Residents)	12,212	20,395	—	12,212	20,395	—

NOTES: Numbers in parentheses are standard deviations for continuous variables.

— = Cell intentionally left blank

ECCP = Enhanced Care and Coordination Provider; COPD = chronic obstructive pulmonary disease

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av10/pah2_av10_3).

Table E-2
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Alabama

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Resident Level:						
Exposure (Initiative-related days)	261.9	264.8	0.409	266.2	262.3	0.237
	(129.4)	(128.4)	—	(127.6)	(129.3)	—
Dual eligible (any episode month)	85.2	86.2	0.261	85.8	83.0	0.003
Age	78.8	78.8	0.949	78.8	79.4	0.058
	(12.2)	(12.1)	—	(12.2)	(12.0)	—
Male	31.4	29.4	0.101	27.1	28.8	0.139
White, non-Hispanic	73.8	75.7	0.100	77.1	80.4	0.002
Black, non-Hispanic	25.0	23.4	0.168	21.5	18.3	0.002
Other race/ethnicity	1.2	0.9	0.215	1.4	1.3	0.744
Any hospice use in 2 months before episode period	2.1	2.7	0.152	2.0	2.7	0.105
HIV/AIDS	0.1	0.1	0.666	0.3	0.0	0.004
Septicemia/shock	9.6	9.3	0.734	10.6	9.8	0.260
Opportunistic Infections	0.2	0.4	0.278	0.4	0.5	0.591
Metastatic cancer and acute leukemia	0.8	0.8	0.955	0.8	0.9	0.918
Lung and other severe cancers	1.0	0.8	0.556	0.8	0.8	0.785
Lymphoma and other cancers	0.9	0.9	0.920	1.2	1.1	0.924
Colorectal, bladder, and other cancers	1.0	1.4	0.171	1.2	1.4	0.433
Breast, prostate, and other cancers and tumors	3.0	2.7	0.553	3.0	2.8	0.758
Diabetes with complications	22.4	24.2	0.128	23.8	24.5	0.499
Diabetes without complications	19.4	19.2	0.846	18.7	16.8	0.044
Protein-calorie malnutrition	11.0	10.2	0.311	11.2	9.5	0.027
Morbid obesity	4.6	5.7	0.061	6.1	5.0	0.060
Other significant endocrine and metabolic disorders	3.7	3.3	0.465	3.4	2.9	0.209
Liver problems	1.6	1.7	0.709	1.2	1.7	0.150
Intestinal obstruction/perforation	4.4	3.9	0.277	3.9	4.0	0.933
Pancreatic disease	0.3	0.3	0.876	0.2	0.3	0.221
Inflammatory bowel disease	0.6	0.7	0.571	0.9	0.8	0.575
Bone/joint/muscle infections/necrosis	2.0	2.4	0.299	2.6	2.3	0.414
Rheumatoid arthritis and inflammatory connective tissue disease	5.4	5.1	0.592	5.5	5.4	0.831
Severe hematological disorders	0.4	0.5	0.849	0.6	0.5	0.501
Disorders of immunity	1.7	1.8	0.808	1.7	1.2	0.101
Coagulation defects & other specified hematological disorders	7.2	7.7	0.497	6.0	6.0	0.893
Schizophrenia	6.6	5.9	0.291	5.6	5.7	0.849

(continued)

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Alabama

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Major depressive, bipolar, and paranoid disorders	12.6	11.7	0.310	10.4	13.2	0.001
Quadriplegia	1.2	0.9	0.215	1.3	1.3	0.980
Paraplegia	0.7	1.1	0.198	0.6	0.8	0.412
Spinal Cord Disorders/Injuries	1.2	1.2	0.923	1.0	1.0	0.802
Amyotrophic lateral sclerosis & other motor neuron disease	0.0	0.1	0.141	0.2	0.1	0.247
Cerebral Palsy	1.7	1.9	0.553	1.4	1.5	0.859
Myasthenia gravis/myoneural disorders, inflammatory &toxic neuropathy	1.1	1.1	0.826	1.2	1.1	0.797
Muscular dystrophy	0.0	0.1	0.344	0.2	0.1	0.301
Multiple sclerosis	1.2	0.7	0.057	1.0	0.8	0.352
Parkinson's and Huntington's diseases	6.9	5.9	0.103	5.8	6.3	0.420
Seizure disorders and convulsions	13.4	13.1	0.715	13.0	11.5	0.075
Coma, brain compression/ Anoxic damage	1.2	1.2	0.992	1.6	1.3	0.360
Respirator dependence/ tracheostomy status	0.5	0.9	0.133	1.0	0.8	0.415
Cardio-respiratory failure and shock	10.5	10.1	0.652	10.9	9.7	0.135
Congestive heart failure	32.3	31.7	0.615	32.8	29.8	0.009
Acute myocardial infarction	2.1	2.9	0.062	3.4	2.4	0.021
Unstable angina and other acute ischemic heart disease and angina pectoris/old myocardial infarction	2.8	4.3	0.003	3.7	3.6	0.826
Specified heart arrhythmias	24.3	24.5	0.837	24.0	24.8	0.504
Stroke	17.8	15.5	0.024	16.5	15.2	0.169
Hemiplegia/hemiparesis	10.7	9.3	0.072	7.8	7.9	0.878
Atherosclerosis of extremities with ulceration or gangrene	2.1	2.7	0.121	2.9	2.7	0.606
Vascular disease with complications	3.1	3.0	0.907	2.3	2.9	0.148
Vascular disease	28.7	29.1	0.702	35.4	21.6	<.001
COPD	26.5	27.0	0.634	26.7	26.8	0.982
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, empyema, and lung abscess	6.2	5.6	0.348	5.9	5.8	0.911
Exudative macular degeneration	1.2	1.2	0.923	0.8	1.6	0.015
Dialysis status	2.0	2.0	0.878	2.4	1.9	0.200
Acute Renal Failure	13.6	13.3	0.708	15.0	13.8	0.194

(continued)

Table E-2 (continued)
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Alabama

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Chronic Kidney Disease, Stage 5	1.0	0.7	0.252	1.0	0.8	0.406
Chronic Kidney Disease, Severe (Stage 4)	1.8	1.0	0.015	0.8	1.1	0.262
Decubitus ulcer of skin	3.0	3.8	0.142	4.0	4.1	0.903
Chronic ulcer of skin, except decubitus	4.4	4.1	0.669	5.9	4.4	0.005
Severe skin burn or condition	0.0	0.0	0.658	0.1	0.0	0.196
Severe and Major Head Injury	2.5	1.7	0.042	1.8	2.5	0.087
Hip fracture/dislocation	6.1	5.9	0.708	6.6	6.2	0.447
Complications of specified implanted device or graft	4.9	4.2	0.245	4.4	4.5	0.825
Major organ transplant or replacement status	0.1	0.0	0.252	0.0	0.0	0.985
Artificial openings for feeding or elimination	5.7	5.7	0.997	6.0	6.0	0.921
Amputation status, lower limb/amputation complications	1.8	1.9	0.791	2.2	1.3	0.010
N (Residents)	2,135	3,951	—	2,247	4,598	—

NOTES: Numbers in parentheses are standard deviations for continuous variables.

— = Cell intentionally left blank

ECCP = Enhanced Care and Coordination Provider; COPD = chronic obstructive pulmonary disease

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av10/pah2_av10_3).

Table E-3
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Indiana

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Resident Level:						
Exposure (Initiative-related days)	244.3	240.0	0.217	227.2	247.7	<.001
	(134.6)	(135.5)	—	(138.7)	(132.3)	—
Dual eligible (any episode month)	78.2	78.9	0.526	83.2	80.8	0.047
Age	81.6	80.9	0.045	80.3	81.0	0.094
	(11.4)	(11.8)	—	(11.5)	(11.6)	—
Male	28.7	28.3	0.758	32.0	29.2	0.057
White, non-Hispanic	92.6	91.0	0.025	74.1	92.9	<.001
Black, non-Hispanic	4.7	5.4	0.235	23.3	3.4	<.001
Other race/ethnicity	2.6	3.6	0.034	2.4	3.7	0.016
Any hospice use in 2 months before episode period	2.6	2.1	0.193	1.9	2.2	0.591
HIV/AIDS	0.1	0.2	0.444	0.3	0.4	0.463
Septicemia/shock	10.6	12.2	0.055	11.7	11.4	0.742
Opportunistic Infections	0.4	0.5	0.712	0.2	0.6	0.032
Metastatic cancer and acute leukemia	0.9	1.2	0.271	0.9	1.1	0.486
Lung and other severe cancers	1.1	1.3	0.507	1.2	1.5	0.390
Lymphoma and other cancers	1.1	1.1	0.924	0.9	1.3	0.202
Colorectal, bladder, and other cancers	1.8	1.5	0.343	1.7	1.6	0.818
Breast, prostate, and other cancers and tumors	3.6	3.2	0.488	3.7	3.3	0.464
Diabetes with complications	20.2	21.7	0.175	23.2	21.5	0.223
Diabetes without complications	17.5	17.6	0.953	15.0	16.0	0.395
Protein-calorie malnutrition	10.9	10.2	0.327	10.1	9.1	0.305
Morbid obesity	5.8	7.2	0.024	4.8	6.9	0.008
Other significant endocrine and metabolic disorders	4.6	5.3	0.251	4.3	4.5	0.732
Liver problems	1.3	1.9	0.063	1.7	1.6	0.728
Intestinal obstruction/perforation	4.0	3.3	0.142	3.9	4.2	0.582
Pancreatic disease	0.2	0.3	0.347	0.7	0.5	0.391
Inflammatory bowel disease	0.4	0.7	0.094	0.5	0.7	0.390
Bone/joint/muscle infections/necrosis	2.4	2.9	0.193	3.6	2.8	0.192
Rheumatoid arthritis and inflammatory connective tissue disease	5.2	5.6	0.449	4.2	5.4	0.074
Severe hematological disorders	1.2	0.8	0.114	1.0	0.8	0.379
Disorders of immunity	1.3	1.5	0.521	1.0	1.7	0.063
Coagulation defects & other specified hematological disorders	7.4	7.5	0.851	11.3	6.6	<.001
Schizophrenia	4.1	4.4	0.535	6.1	4.3	0.010

(continued)

Table E-3 (continued)
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Indiana

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Major depressive, bipolar, and paranoid disorders	17.9	18.7	0.455	19.4	20.5	0.407
Quadriplegia	0.8	1.4	0.027	1.0	1.5	0.217
Paraplegia	0.9	0.9	0.839	0.8	0.4	0.137
Spinal Cord Disorders/Injuries	1.3	1.3	0.972	0.6	1.1	0.094
Amyotrophic lateral sclerosis & other motor neuron disease	0.2	0.2	0.649	0.2	0.1	0.513
Cerebral palsy	1.2	1.0	0.497	0.3	1.0	0.007
Myasthenia gravis/myoneural disorders, inflammatory &toxic neuropathy	1.2	1.3	0.727	1.2	0.9	0.369
Muscular dystrophy	0.2	0.1	0.523	0.2	0.1	0.296
Multiple sclerosis	1.1	1.3	0.558	1.5	1.5	0.923
Parkinson's and Huntington's diseases	9.0	9.5	0.466	6.5	8.8	0.007
Seizure disorders and convulsions	10.1	10.4	0.704	11.6	11.1	0.618
Coma, brain compression/ Anoxic damage	1.0	1.1	0.606	0.9	1.1	0.576
Respirator dependence/ tracheostomy status	0.9	1.8	0.003	0.8	1.3	0.144
Cardio-respiratory failure and shock	11.0	11.9	0.279	11.1	10.7	0.743
Congestive heart failure	33.7	34.3	0.605	34.0	31.6	0.106
Acute myocardial infarction	3.1	2.7	0.337	3.5	3.3	0.722
Unstable angina and other acute ischemic heart disease and angina pectoris/old myocardial infarction	3.5	4.2	0.184	4.3	3.4	0.167
Specified heart arrhythmias	27.9	27.2	0.587	24.6	26.1	0.274
Stroke	14.0	17.0	0.002	15.2	15.2	0.981
Hemiplegia/hemiparesis	7.0	7.4	0.539	7.2	7.4	0.743
Atherosclerosis of extremities with ulceration or gangrene	2.0	2.7	0.094	2.4	2.6	0.821
Vascular disease with complications	4.4	3.9	0.336	3.8	3.6	0.733
Vascular disease	41.2	46.8	<.001	40.6	48.0	<.001
COPD	25.6	28.5	0.011	25.1	27.2	0.137
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, empyema, and lung abscess	5.2	6.6	0.032	5.2	5.7	0.495
Exudative macular degeneration	2.9	2.5	0.389	1.9	2.4	0.292

(continued)

Table E-3 (continued)
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Indiana

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Dialysis status	1.8	2.2	0.221	3.0	2.0	0.041
Acute Renal Failure	15.7	15.7	1.000	15.0	14.7	0.812
Chronic Kidney Disease, Stage 5	0.4	0.7	0.137	0.3	0.4	0.845
Chronic Kidney Disease, Severe (Stage 4)	1.4	1.8	0.217	1.4	2.2	0.047
Decubitus ulcer of skin	4.6	5.3	0.251	8.7	4.1	<.001
Chronic ulcer of skin, except decubitus	5.4	5.1	0.648	5.3	4.7	0.353
Severe skin burn or condition	0.0	0.0	0.306	0.2	0.1	0.513
Severe and Major Head Injury	2.3	2.3	0.932	2.0	3.0	0.041
Hip fracture/dislocation	6.0	5.9	0.787	5.3	7.0	0.033
Complications of specified implanted device or graft	4.8	5.5	0.222	5.0	4.4	0.422
Major organ transplant or replacement status	0.1	0.2	0.621	0.1	0.1	0.673
Artificial openings for feeding or elimination	3.7	4.2	0.332	3.8	3.8	0.963
Amputation status, lower limb/amputation complications	1.2	1.2	0.975	1.0	1.0	0.814
N (Residents)	2,238	4,279	—	1,761	2,113	—

NOTES: Numbers in parentheses are standard deviations for continuous variables.

— = Cell intentionally left blank

ECCP = Enhanced Care and Coordination Provider; COPD = chronic obstructive pulmonary disease

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av10/pah2_av10_3).

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Missouri

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Resident Level:						
Exposure (Initiative-related days)	264.2	253.9	0.004	260.2	253.9	0.137
	(128.2)	(129.4)	—	(128.7)	(131.8)	—
Dual eligible (any episode month)	76.2	73.7	0.036	82.6	75.4	<.001
Age	80.9	80.6	0.513	79.6	79.4	0.678
	(12.7)	(12.0)	—	(13.2)	(13.1)	—
Male	26.6	29.8	0.009	28.7	29.9	0.396
White, non-Hispanic	92.2	92.8	0.473	85.5	84.6	0.451
Black, non-Hispanic	6.0	5.4	0.358	13.4	13.9	0.666
Other race/ethnicity	1.5	1.8	0.440	1.0	1.5	0.157
Any hospice use in 2 months before episode period	2.7	3.2	0.237	3.7	3.4	0.632
HIV/AIDS	0.2	0.1	0.195	0.2	0.1	0.269
Septicemia/shock	10.2	10.5	0.700	12.0	10.7	0.213
Opportunistic Infections	0.5	0.6	0.939	0.6	0.6	0.909
Metastatic cancer and acute leukemia	1.0	1.4	0.159	1.3	1.1	0.623
Lung and other severe cancers	1.2	1.2	0.993	1.0	1.0	0.789
Lymphoma and other cancers	1.7	1.1	0.063	1.7	0.9	0.034
Colorectal, bladder, and other cancers	1.4	1.9	0.112	2.3	1.6	0.141
Breast, prostate, and other cancers and tumors	4.2	4.1	0.820	4.0	3.6	0.513
Diabetes with complications	20.7	21.9	0.302	23.8	20.8	0.028
Diabetes without complications	16.1	15.3	0.438	15.7	15.5	0.855
Protein-calorie malnutrition	7.9	8.1	0.824	8.6	9.9	0.175
Morbid obesity	6.0	6.0	0.965	6.7	6.0	0.361
Other significant endocrine and metabolic disorders	4.2	4.3	0.850	4.5	4.4	0.847
Liver problems	1.4	1.5	0.757	1.7	1.4	0.456
Intestinal obstruction/perforation	3.0	3.5	0.337	3.2	2.6	0.351
Pancreatic disease	0.3	0.2	0.511	0.2	0.2	0.743
Inflammatory bowel disease	0.8	0.6	0.485	0.4	0.6	0.404
Bone/joint/muscle infections/necrosis	2.3	2.7	0.312	2.6	2.1	0.326
Rheumatoid arthritis and inflammatory connective tissue disease	5.9	4.7	0.051	6.2	4.3	0.007
Severe hematological disorders	0.5	0.8	0.174	0.5	0.7	0.504
Disorders of immunity	1.5	1.7	0.540	1.6	2.0	0.334
Coagulation defects & other specified hematological disorders	7.5	6.1	0.038	6.4	7.4	0.235
Schizophrenia	6.3	6.1	0.705	7.2	9.9	0.004
Major depressive, bipolar, and paranoid disorders	20.9	19.5	0.213	34.9	17.2	<.001
Quadriplegia	1.1	0.9	0.572	2.5	1.1	<.001

(continued)

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Missouri

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Paraplegia	0.8	0.6	0.322	1.1	0.8	0.230
Spinal Cord Disorders/Injuries	0.8	1.3	0.050	1.0	1.1	0.823
Amyotrophic lateral sclerosis & other motor neuron disease	0.1	0.2	0.259	0.3	0.2	0.494
Cerebral palsy	1.5	0.9	0.057	1.5	0.5	0.001
Myasthenia gravis/myoneural disorders, inflammatory &toxic neuropathy	1.1	1.1	0.999	0.9	0.8	0.642
Muscular dystrophy	0.2	0.1	0.363	0.2	0.0	0.215
Multiple Sclerosis	0.9	1.7	0.020	4.0	1.4	<.001
Parkinson's and Huntington's diseases	7.9	8.3	0.598	7.6	6.5	0.188
Seizure disorders and convulsions	9.4	10.9	0.072	13.3	10.8	0.020
Coma, brain compression/ Anoxic damage	0.9	1.2	0.183	1.2	1.1	0.641
Respirator dependence/ tracheostomy status	0.9	0.7	0.435	1.2	0.7	0.123
Cardio-respiratory failure and shock	11.5	10.5	0.253	12.2	11.2	0.333
Congestive heart failure	32.1	31.0	0.396	35.9	28.6	<.001
Acute myocardial infarction	2.8	3.7	0.080	3.9	2.9	0.110
Unstable angina and other acute ischemic heart disease and angina pectoris/old myocardial infarction	4.3	3.3	0.071	4.9	2.9	0.001
Specified heart arrhythmias	26.4	26.6	0.908	26.9	23.7	0.024
Stroke	11.9	14.1	0.019	17.0	12.3	<.001
Hemiplegia/hemiparesis	9.1	8.2	0.253	12.3	7.1	<.001
Atherosclerosis of extremities with ulceration or gangrene	2.1	1.6	0.139	2.4	2.4	0.876
Vascular disease with complications	3.7	3.3	0.404	3.5	3.0	0.399
Vascular disease	40.1	53.9	<.001	32.9	49.6	<.001
COPD	26.6	25.7	0.470	24.9	25.6	0.638
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, empyema, and lung abscess	7.1	5.9	0.091	8.6	7.2	0.099
Exudative macular degeneration	2.4	2.4	0.900	1.5	1.9	0.423
Dialysis status	1.5	1.5	0.969	2.5	2.2	0.572
Acute Renal Failure	13.2	13.5	0.747	15.0	14.2	0.474
Chronic Kidney Disease, Stage 5	0.7	0.6	0.793	1.1	0.8	0.305
Chronic Kidney Disease, Severe (Stage 4)	0.9	1.1	0.485	1.4	1.0	0.351

Table E-4 (continued)
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Missouri

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Decubitus ulcer of skin	2.8	4.6	0.001	6.8	4.9	0.014
Chronic ulcer of skin, except decubitus	6.1	5.4	0.290	6.9	5.6	0.091
Severe skin burn or condition	0.1	0.0	0.359	0.1	0.0	0.434
Severe and Major Head Injury	2.2	1.9	0.579	2.4	1.9	0.244
Hip fracture/dislocation	6.6	6.0	0.356	4.9	6.0	0.156
Complications of specified implanted device or graft	4.6	4.4	0.733	5.9	4.2	0.017
Major organ transplant or replacement status	0.1	0.1	0.714	0.1	0.1	0.703
Artificial openings for feeding or elimination	3.7	3.5	0.586	4.6	4.1	0.424
Amputation status, lower limb/amputation complications	1.0	1.4	0.287	1.1	1.3	0.564
N (Residents)	2,218	3,234	—	1,682	2,119	—

NOTES: Numbers in parentheses are standard deviations for continuous variables.

— = Cell intentionally left blank

ECCP = Enhanced Care and Coordination Provider; COPD = chronic obstructive pulmonary disease

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av10/pah2_av10_3).

Characteristic	Group A			Group B		
	ECCP (CO)	Comparison (TX)	*p-value*	ECCP (NV)	Comparison (TX)	*p-value*
Resident Level:						
Exposure (Initiative-related days)	239.9	238.5	0.723	243.7	248.1	0.371
	(136.6)	(133.1)	—	(137.0)	(131.9)	—
Dual eligible (any episode month)	74.5	67.5	<.001	79.7	72.3	<.001
Age	81.8	81.1	0.033	75.4	80.9	<.001
	(11.6)	(11.3)	—	(12.7)	(11.4)	—
Male	31.7	29.7	0.140	38.9	27.8	<.001
White, non-Hispanic	87.2	76.6	<.001	74.4	78.0	0.018
Black, non-Hispanic	3.6	6.9	<.001	10.6	10.1	0.609
Other race/ethnicity	9.2	16.4	<.001	15.0	11.9	0.012
Any hospice use in 2 months before episode period	2.8	3.8	0.064	1.0	3.7	<.001
HIV/AIDS	0.1	0.1	0.432	0.5	0.0	0.005
Septicemia/shock	11.1	13.8	0.006	18.3	11.4	<.001
Opportunistic Infections	0.3	0.7	0.138	0.9	0.3	0.037
Metastatic cancer and acute leukemia	1.1	1.1	0.993	1.2	1.3	0.839
Lung and other severe cancers	0.6	1.1	0.138	1.5	1.6	0.745
Lymphoma and other cancers	1.3	1.5	0.616	1.4	1.4	0.910
Colorectal, bladder, and other cancers	1.4	1.7	0.366	1.9	1.9	0.912
Breast, prostate, and other cancers and tumors	3.7	4.1	0.411	3.7	5.5	0.023
Diabetes with complications	18.4	27.7	<.001	26.5	26.2	0.867
Diabetes without complications	9.8	10.9	0.213	18.6	12.8	<.001
Protein-calorie malnutrition	10.6	15.4	<.001	21.6	11.7	<.001
Morbid obesity	5.8	5.6	0.802	8.4	5.6	0.002
Other significant endocrine and metabolic disorders	5.1	5.2	0.811	5.8	4.0	0.017
Liver problems	1.6	1.7	0.778	3.2	1.6	0.002
Intestinal obstruction/perforation	3.1	3.8	0.219	6.5	3.5	<.001
Pancreatic disease	0.1	0.2	0.425	0.8	0.2	0.009
Inflammatory bowel disease	0.6	1.0	0.161	1.3	1.2	0.720
Bone/joint/muscle infections/necrosis	3.8	3.8	0.958	4.6	3.3	0.070
Rheumatoid arthritis and inflammatory connective tissue disease	5.9	6.0	0.889	4.7	5.7	0.197
Severe hematological disorders	0.5	1.1	0.030	0.5	0.6	0.650
Disorders of immunity	2.0	1.7	0.391	2.6	1.2	0.004
Coagulation defects & other specified hematological disorders	9.4	9.0	0.685	12.7	8.9	<.001
Schizophrenia	3.4	4.4	0.102	4.8	3.9	0.189
Major depressive, bipolar, and paranoid disorders	13.7	26.6	<.001	23.2	24.4	0.451
Quadriplegia	0.6	1.6	0.002	3.5	2.0	0.010

(continued)

Table E-5 (continued)
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nevada & Colorado

Characteristic	Group A			Group B		
	ECCP (CO)	Comparison (TX)	*p-value*	ECCP (NV)	Comparison (TX)	*p-value*
Paraplegia	1.2	1.1	0.787	2.9	1.3	<.001
Spinal Cord Disorders/Injuries	1.3	1.7	0.218	1.0	1.2	0.513
Amyotrophic lateral sclerosis & other motor neuron disease	0.2	0.2	0.917	0.3	0.2	0.873
Cerebral palsy	0.6	1.1	0.087	1.5	1.0	0.197
Myasthenia gravis/myoneural disorders, inflammatory &toxic neuropathy	1.3	2.3	0.022	2.5	2.5	0.982
Muscular dystrophy	0.1	0.1	0.432	0.2	0.3	0.427
Multiple sclerosis	2.7	1.4	0.001	3.6	1.2	<.001
Parkinson's and Huntington's diseases	7.3	8.0	0.319	7.4	7.2	0.879
Seizure disorders and convulsions	8.4	12.0	<.001	18.3	11.1	<.001
Coma, brain compression/ Anoxic damage	0.9	1.3	0.278	2.8	1.4	0.007
Respirator dependence/ tracheostomy status	0.5	1.2	0.007	8.6	1.1	<.001
Cardio-respiratory failure and shock	12.8	10.8	0.030	13.4	10.2	0.006
Congestive heart failure	27.2	33.9	<.001	30.9	33.7	0.106
Acute myocardial infarction	1.8	3.0	0.009	3.7	2.1	0.007
Unstable angina and other acute ischemic heart disease and angina pectoris/old myocardial infarction	3.6	4.8	0.045	5.5	4.1	0.079
Specified heart arrhythmias	23.6	28.8	<.001	27.0	27.4	0.820
Stroke	11.8	18.9	<.001	22.9	21.5	0.326
Hemiplegia/hemiparesis	8.3	9.6	0.116	13.1	9.7	0.003
Atherosclerosis of extremities with ulceration or gangrene	1.9	3.2	0.007	2.2	3.1	0.136
Vascular disease with complications	5.8	4.1	0.008	5.8	3.8	0.008
Vascular disease	48.4	57.0	<.001	38.9	58.1	<.001
COPD	23.7	24.7	0.417	36.8	23.9	<.001
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, empyema, and lung abscess	6.3	8.2	0.014	9.2	7.7	0.134
Exudative macular degeneration	3.1	2.5	0.206	1.7	2.2	0.388
Dialysis status	1.7	2.8	0.017	3.3	2.7	0.320
Acute Renal Failure	13.4	17.5	<.001	21.0	15.4	<.001
Chronic Kidney Disease, Stage 5	0.8	0.8	0.915	1.1	0.6	0.144
Chronic Kidney Disease, Severe (Stage 4)	1.5	1.3	0.471	0.6	1.9	0.003
Decubitus ulcer of skin	4.3	7.8	<.001	9.6	7.3	0.018
Chronic ulcer of skin, except decubitus	7.3	6.4	0.205	7.6	7.5	0.896

(continued)

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nevada & Colorado

Characteristic	Group A			Group B		
	ECCP (CO)	Comparison (TX)	*p-value*	ECCP (NV)	Comparison (TX)	*p-value*
Severe skin burn or condition	0.1	0.1	0.952	0.0	0.0	—
Severe and Major Head Injury	2.8	2.7	0.805	3.3	2.8	0.404
Hip fracture/dislocation	7.8	7.9	0.877	6.3	8.0	0.078
Complications of specified implanted device or graft	5.3	6.2	0.181	7.3	5.3	0.024
Major organ transplant or replacement status	0.2	0.1	0.412	0.1	0.0	0.652
Artificial openings for feeding or elimination	3.6	5.3	0.006	11.8	5.6	<.001
Amputation status, lower limb/amputation complications	1.7	1.2	0.139	1.5	1.5	0.985
N (Residents)	1,721	3,705	—	1,155	2,162	—

NOTES: Numbers in parentheses are standard deviations for continuous variables.

— = Cell intentionally left blank

ECCP = Enhanced Care and Coordination Provider; COPD = chronic obstructive pulmonary disease

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av10/pah2_av10_3).

Table E-6
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), New York

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Resident Level:						
Exposure (Initiative-related days)	247.9	244.0	0.126	228.5	243.1	<.001
	(134.5)	(135.7)	—	(138.9)	(136.9)	—
Dual eligible (any episode month)	85.9	82.7	<.001	84.3	89.6	<.001
Age	81.9	83.1	<.001	80.4	79.6	0.001
	(11.5)	(10.7)	—	(12.4)	(12.1)	—
Male	33.4	30.2	<.001	34.6	37.9	<.001
White, non-Hispanic	75.5	80.0	<.001	58.9	56.6	0.024
Black, non-Hispanic	13.7	11.0	<.001	21.7	24.6	<.001
Other race/ethnicity	10.8	9.0	<.001	19.5	18.7	0.372
Any hospice use in 2 months before episode period	0.5	0.7	0.290	0.9	0.7	0.251
HIV/AIDS	0.5	0.2	<.001	2.6	0.7	<.001
Septicemia/shock	18.6	16.5	0.003	19.6	19.3	0.661
Opportunistic Infections	0.7	0.5	0.349	0.8	0.7	0.462
Metastatic cancer and acute leukemia	1.7	1.3	0.115	2.1	1.7	0.238
Lung and other severe cancers	1.7	1.7	0.761	1.9	2.0	0.516
Lymphoma and other cancers	1.8	1.4	0.119	1.6	1.4	0.327
Colorectal, bladder, and other cancers	2.0	2.3	0.300	2.5	2.4	0.716
Breast, prostate, and other cancers and tumors	4.8	5.0	0.761	5.4	5.1	0.481
Diabetes with complications	24.5	23.5	0.214	25.3	26.4	0.232
Diabetes without complications	15.8	14.4	0.030	16.5	17.0	0.522
Protein-calorie malnutrition	8.8	8.4	0.420	10.2	10.3	0.927
Morbid obesity	4.6	4.5	0.850	4.7	5.2	0.260
Other significant endocrine and metabolic disorders	5.7	4.6	0.008	6.4	5.6	0.088
Liver problems	2.5	1.7	0.003	2.7	2.7	0.995
Intestinal obstruction/perforation	4.5	4.0	0.131	4.8	5.0	0.670
Pancreatic disease	0.2	0.3	0.946	0.3	0.3	0.931
Inflammatory bowel disease	1.8	1.5	0.181	1.3	1.5	0.346
Bone/joint/muscle infections/necrosis	4.2	3.5	0.042	6.0	5.0	0.042
Rheumatoid arthritis and inflammatory connective tissue disease	5.2	6.3	0.013	5.8	4.7	0.012
Severe hematological disorders	1.2	1.0	0.192	1.4	1.0	0.045
Disorders of immunity	1.9	1.5	0.100	2.5	2.0	0.166
Coagulation defects & other specified hematological disorders	10.6	9.7	0.139	12.7	10.5	<.001

(continued)

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), New York

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Schizophrenia	10.5	6.7	<.001	5.3	11.7	<.001
Major depressive, bipolar, and paranoid disorders	20.5	20.9	0.599	26.0	25.2	0.416
Quadriplegia	2.5	2.6	0.768	2.8	3.4	0.115
Paraplegia	0.7	0.7	0.946	0.8	1.0	0.579
Spinal Cord Disorders/Injuries	1.7	1.4	0.107	1.4	1.7	0.270
Amyotrophic lateral sclerosis & other motor neuron disease	0.2	0.2	0.240	0.4	0.2	0.025
Cerebral Palsy	0.8	0.5	0.076	0.6	1.1	0.019
Myasthenia gravis/myoneural disorders, inflammatory &toxic neuropathy	2.1	1.4	0.002	1.8	1.6	0.554
Muscular dystrophy	0.2	0.2	0.240	0.2	0.1	0.683
Multiple sclerosis	1.4	1.8	0.098	2.3	1.6	0.013
Parkinson's and Huntington's diseases	10.1	8.1	<.001	8.5	8.8	0.592
Seizure disorders and convulsions	14.3	11.3	<.001	15.5	15.0	0.501
Coma, brain compression/ Anoxic damage	1.7	1.7	0.929	2.2	2.0	0.657
Respirator dependence/ tracheostomy status	1.2	1.2	0.915	4.7	2.7	<.001
Cardio-respiratory failure and shock	11.8	10.7	0.068	11.2	11.2	0.996
Congestive heart failure	35.4	34.3	0.207	36.9	35.0	0.056
Acute myocardial infarction	4.3	3.5	0.025	4.5	3.9	0.108
Unstable angina and other acute ischemic heart disease and angina pectoris/old myocardial infarction	6.6	6.8	0.736	7.8	7.3	0.372
Specified heart arrhythmias	29.8	31.7	0.027	30.9	28.2	0.004
Stroke	17.6	16.1	0.037	20.4	19.5	0.276
Hemiplegia/hemiparesis	8.0	8.3	0.544	11.1	9.0	<.001
Atherosclerosis of extremities with ulceration or gangrene	3.2	3.5	0.363	6.1	5.0	0.025
Vascular disease with complications	4.4	4.5	0.839	4.6	5.5	0.040
Vascular disease	53.8	48.4	<.001	49.3	50.0	0.505
COPD	27.5	24.0	<.001	23.7	25.7	0.026
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, empyema, and lung abscess	8.6	7.7	0.077	10.1	8.2	<.001
Exudative macular degeneration	2.1	2.5	0.220	2.0	1.6	0.133
Dialysis status	2.8	1.7	<.001	5.9	4.7	0.006
Acute Renal Failure	17.4	16.0	0.055	18.9	18.3	0.493

(continued)

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), New York

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Chronic Kidney Disease, Stage 5	0.9	0.7	0.377	0.9	0.9	0.868
Chronic Kidney Disease, Severe (Stage 4)	0.8	0.9	0.756	0.8	0.7	0.330
Decubitus ulcer of skin	8.2	7.4	0.120	11.7	9.2	<.001
Chronic ulcer of skin, except decubitus	7.1	9.0	<.001	10.2	8.8	0.024
Severe skin burn or condition	0.0	0.0	0.855	0.0	0.0	0.300
Severe and Major Head Injury	2.7	2.5	0.397	2.5	2.4	0.614
Hip fracture/dislocation	6.8	7.5	0.161	7.1	5.9	0.014
Complications of specified implanted device or graft	5.5	4.7	0.049	7.9	7.3	0.231
Major organ transplant or replacement status	0.2	0.1	0.392	0.1	0.1	0.905
Artificial openings for feeding or elimination	6.6	5.6	0.024	8.5	7.5	0.073
Amputation status, lower limb/amputation complications	1.1	0.9	0.231	1.2	1.6	0.129
N (Residents)	4,425	7,843	—	3,665	6,812	—

NOTES: Numbers in parentheses are standard deviations for continuous variables.

— = Cell intentionally left blank

ECCP = Enhanced Care and Coordination Provider; COPD = chronic obstructive pulmonary disease

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av10/pah2_av10_3).

Table E-7
Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Pennsylvania

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Resident Level:						
Exposure (Initiative-related days)	251.8	257.4	0.126	273.1	257.4	<.001
	(132.3)	(130.0)	—	(125.2)	(131.4)	—
Dual eligible (any episode month)	86.4	79.7	<.001	90.5	85.6	<.001
Age	82.1	82.4	0.333	78.1	80.6	<.001
	(11.2)	(11.3)	—	(12.6)	(11.6)	—
Male	28.8	28.6	0.854	35.7	31.9	0.009
White, non-Hispanic	82.8	81.0	0.093	89.2	91.2	0.037
Black, non-Hispanic	13.5	14.5	0.296	9.3	4.9	<.001
Other race/ethnicity	3.7	4.5	0.154	1.5	3.9	<.001
Any hospice use in 2 months before episode period	2.0	2.5	0.260	1.3	2.9	<.001
HIV/AIDS	0.2	0.2	0.937	0.1	0.1	0.987
Septicemia/shock	15.1	13.6	0.122	10.6	11.8	0.226
Opportunistic Infections	0.4	0.5	0.799	0.4	0.6	0.298
Metastatic cancer and acute leukemia	1.0	1.3	0.300	1.2	1.5	0.401
Lung and other severe cancers	1.1	1.6	0.166	1.1	1.0	0.961
Lymphoma and other cancers	1.0	1.9	0.009	1.3	1.7	0.291
Colorectal, bladder, and other cancers	2.7	2.1	0.175	1.4	1.9	0.233
Breast, prostate, and other cancers and tumors	4.2	4.6	0.437	3.6	4.5	0.162
Diabetes with complications	26.1	23.4	0.022	23.3	26.1	0.038
Diabetes without complications	12.2	14.7	0.009	19.2	15.1	<.001
Protein-calorie malnutrition	7.4	7.4	0.951	10.2	6.9	<.001
Morbid obesity	5.9	5.5	0.584	6.7	6.6	0.899
Other significant endocrine and metabolic disorders	4.5	4.5	0.978	5.1	5.0	0.958
Liver problems	1.5	2.1	0.083	2.5	1.9	0.160
Intestinal obstruction/perforation	5.2	4.8	0.467	4.8	3.6	0.054
Pancreatic disease	0.2	0.3	0.645	0.4	0.3	0.631
Inflammatory bowel disease	1.1	1.0	0.641	0.9	1.1	0.655
Bone/joint/muscle infections/necrosis	3.4	3.1	0.556	3.0	3.6	0.322
Rheumatoid arthritis and inflammatory connective tissue disease	4.6	5.3	0.301	3.8	4.6	0.200
Severe hematological disorders	0.7	1.0	0.208	0.4	0.9	0.067
Disorders of immunity	1.3	2.1	0.034	1.1	1.9	0.038
Coagulation defects & other specified hematological disorders	8.1	8.3	0.807	8.8	9.0	0.789
Schizophrenia	3.9	6.2	<.001	12.3	6.7	<.001
Major depressive, bipolar, and paranoid disorders	22.9	25.2	0.054	22.2	23.0	0.514

(continued)

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Quadriplegia	0.9	1.2	0.279	1.4	1.4	0.961
Paraplegia	1.3	0.8	0.057	0.7	0.5	0.392
Spinal Cord Disorders/Injuries	1.3	1.7	0.205	1.6	1.2	0.263
Amyotrophic lateral sclerosis & other motor neuron disease	0.4	0.4	0.687	0.1	0.1	0.549
Cerebral palsy	0.9	0.8	0.652	1.9	0.9	0.007
Myasthenia gravis/myoneural disorders, inflammatory &toxic neuropathy	1.1	1.1	0.859	1.8	1.4	0.313
Muscular dystrophy	0.0	0.1	0.306	0.2	0.2	0.982
Multiple Sclerosis	1.4	1.5	0.895	2.8	1.6	0.008
Parkinson's and Huntington's diseases	7.6	7.8	0.774	8.6	7.5	0.196
Seizure disorders and convulsions	12.1	10.1	0.025	16.3	12.9	0.001
Coma, brain compression/ Anoxic damage	1.4	1.4	0.970	1.6	1.1	0.111
Respirator dependence/ tracheostomy status	2.0	1.7	0.457	1.6	1.4	0.499
Cardio-respiratory failure and shock	10.5	9.9	0.490	8.7	11.0	0.016
Congestive heart failure	31.6	32.7	0.394	28.8	32.1	0.021
Acute myocardial infarction	5.2	4.4	0.153	1.6	3.6	<.001
Unstable angina and other acute ischemic heart disease and angina pectoris/old myocardial infarction	4.1	4.6	0.361	3.4	5.0	0.012
Specified heart arrhythmias	33.0	31.0	0.127	27.1	29.3	0.110
Stroke	16.5	16.9	0.727	15.2	15.8	0.615
Hemiplegia/hemiparesis	7.6	10.0	0.002	7.5	6.0	0.056
Atherosclerosis of extremities with ulceration or gangrene	3.8	4.2	0.525	2.5	3.0	0.313
Vascular disease with complications	4.9	5.4	0.436	4.1	4.4	0.650
Vascular disease	62.6	58.4	0.002	57.1	61.6	0.003
COPD	23.0	22.7	0.845	28.3	25.0	0.015
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, empyema, and lung abscess	6.9	7.2	0.688	6.7	6.2	0.526
Exudative macular degeneration	3.4	2.9	0.322	1.9	2.7	0.098
Dialysis status	3.0	2.6	0.461	2.1	1.6	0.293
Acute Renal Failure	17.2	17.7	0.670	12.9	15.2	0.032
Chronic Kidney Disease, Stage 5	1.0	0.9	0.760	0.4	0.6	0.452
Chronic Kidney Disease, Severe (Stage 4)	1.3	1.1	0.551	1.1	1.4	0.395
Decubitus ulcer of skin	5.9	7.8	0.007	5.4	5.1	0.654

(continued)

Resident characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Pennsylvania

Characteristic	Group A			Group B		
	ECCP	Comparison	*p-value*	ECCP	Comparison	*p-value*
Chronic ulcer of skin, except decubitus	8.0	6.8	0.108	7.3	7.5	0.805
Severe skin burn or condition	0.0	0.1	0.306	0.1	0.0	0.765
Severe and Major Head Injury	3.3	2.6	0.121	2.1	2.5	0.377
Hip fracture/dislocation	5.6	6.2	0.366	4.9	6.5	0.025
Complications of specified implanted device or graft	5.3	5.4	0.840	5.1	3.8	0.052
Major organ transplant or replacement status	0.1	0.2	0.192	0.1	0.0	0.765
Artificial openings for feeding or elimination	4.8	5.2	0.488	5.1	4.1	0.136
Amputation status, lower limb/amputation complications	1.4	1.4	0.970	1.4	1.4	0.917
N (Residents)	1,960	3,735	—	1,702	2,591	—

NOTES: Numbers in parentheses are standard deviations for continuous variables.

— = Cell intentionally left blank

ECCP = Enhanced Care and Coordination Provider; COPD = chronic obstructive pulmonary disease

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av10/pah2_av10_3).

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APPENDIX F
SUBSET OF ICD-10 AND ICD-9 DIAGNOSIS CODES (UPDATED THROUGH FY 2016) FOR POTENTIALLY AVOIDABLE HOSPITALIZATIONS FOR THE NFI 2 SIX QUALIFYING CONDITIONS

Tables F-1 through *F-6* list the subset of diagnosis codes, updated through FY 2016, to identify potentially avoidable hospitalizations for each of the six qualifying conditions for payment under NFI 2: pneumonia (*Table F-1*), CHF (*Table F-2*), COPD/asthma (*Table F-3*), skin infection (*Table F-4*), dehydration (*Table F-5*), and UTI (*Table F-6*).

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Table F-1
ICD-10 Codes used to identify Pneumonia

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
A481	Legionnaires' disease	48284	Legionnaires' disease	Lower respiratory: pneumonia & bronchitis
J13	Pneumonia due to *Streptococcus pneumoniae*	481	Pneumococcal pneumonia	Lower respiratory: pneumonia & bronchitis
J14	Pneumonia due to *Haemophilus influenzae*	4822	H.influenzae pneumonia	Lower respiratory: pneumonia & bronchitis
J150	Pneumonia due to *Klebsiella pneumoniae*	4820	K. pneumoniae pneumonia	Lower respiratory: pneumonia & bronchitis
J151	Pneumonia due to Pseudomonas	4821	Pseudomonal pneumonia	Lower respiratory: pneumonia & bronchitis
J1520	Pneumonia due to staphylococcus, unspecified	48240	Staphylococcal pneu NOS	Lower respiratory: pneumonia & bronchitis
J15211	Pneumonia due to Methicillin susceptible Staphylococcus aureus	48241	Meth sus pneum d/t Staph	Lower respiratory: pneumonia & bronchitis
J15212	Pneumonia due to Methicillin resistant Staphylococcus aureus	48242	Meth res pneu d/t Staph	Lower respiratory: pneumonia & bronchitis
J1529	Pneumonia due to other staphylococcus	48249	Staph pneumonia NEC	Lower respiratory: pneumonia & bronchitis
J153	Pneumonia due to streptococcus, group B	48232	Pneumonia strptococcus b	Lower respiratory: pneumonia & bronchitis
J154	Pneumonia due to other streptococci	48230	Streptococcal pneumn NOS	Lower respiratory: pneumonia & bronchitis
J155	Pneumonia due to *Escherichia coli*	48282	Pneumonia e coli	Lower respiratory: pneumonia & bronchitis
J156	Pneumonia due to other aerobic Gram-negative bacteria	48283	Pneumo oth grm-neg bact	Lower respiratory: pneumonia & bronchitis
J157	Pneumonia due to *Mycoplasma pneumoniae*	4830	Pneu mycplsm pneumoniae	Lower respiratory: pneumonia & bronchitis
J158	Pneumonia due to other specified bacteria	48281	Pneumonia anaerobes	Lower respiratory: pneumonia & bronchitis
J159	Unspecified bacterial pneumonia	4829	Bacterial pneumonia NOS	Lower respiratory: pneumonia & bronchitis
J160	Chlamydial pneumonia	4831	Pneumonia d/t chlamydia	Lower respiratory: pneumonia & bronchitis
J168	Pneumonia due to other specified infectious organisms	4838	Pneumon oth spec orgnsm	Lower respiratory: pneumonia & bronchitis
J180	Bronchopneumonia, unspecified organism	485	Bronchopneumonia org NOS	Lower respiratory: pneumonia & bronchitis
J181	Lobar pneumonia, unspecified organism	481	Pneumococcal pneumonia	Lower respiratory: pneumonia & bronchitis
J189	Pneumonia, unspecified organism	486	Pneumonia, organism NOS	Lower respiratory: pneumonia & bronchitis
J690	Pneumonitis due to inhalation of food and vomit	5070	Food/vomit pneumonitis	Lower respiratory: pneumonia & bronchitis
J95851	Ventilator associated pneumonia	99731	Ventltr assoc pneumonia	Lower respiratory: pneumonia & bronchitis

Table F-2
ICD-10 Codes used to identify CHF

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
I0981	Rheumatic heart failure	39891	Rheumatic heart failure	Congestive heart failure
I110	Hypertensive heart disease with heart failure	40211	Benign hyp ht dis w hf	Congestive heart failure
I130	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	40411	Ben hyp ht/kd I-IV w hf	Congestive heart failure
I132	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	40413	Ben hyp ht/kd stg V w hf	Congestive heart failure
I501	Left ventricular failure	4281	Left heart failure	Congestive heart failure
I5020	Unspecified systolic (congestive) heart failure	42820	Systolic hrt failure NOS	Congestive heart failure
I5021	Acute systolic (congestive) heart failure	42821	Ac systolic hrt failure	Congestive heart failure
I5022	Chronic systolic (congestive) heart failure	42822	Chr systolic hrt failure	Congestive heart failure
I5023	Acute on chronic systolic (congestive) heart failure	42823	Ac on chr syst hrt fail	Congestive heart failure
I5030	Unspecified diastolic (congestive) heart failure	42830	Diastolc hrt failure NOS	Congestive heart failure
I5031	Acute diastolic (congestive) heart failure	42831	Ac diastolic hrt failure	Congestive heart failure
I5032	Chronic diastolic (congestive) heart failure	42832	Chr diastolic hrt fail	Congestive heart failure
I5033	Acute on chronic diastolic (congestive) heart failure	42833	Ac on chr diast hrt fail	Congestive heart failure
I5040	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	42840	Syst/diast hrt fail NOS	Congestive heart failure
I5041	Acute combined systolic (congestive) and diastolic (congestive) heart failure	42841	Ac syst/diastol hrt fail	Congestive heart failure
I5042	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	42842	Chr syst/diastl hrt fail	Congestive heart failure
I5043	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	42843	Ac/chr syst/dia hrt fail	Congestive heart failure
I509	Heart failure, unspecified	4280	CHF NOS	Congestive heart failure

Table F-3
ICD-10 Codes used to identify COPD/Asthma

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
J410	Simple chronic bronchitis	4910	Simple chr bronchitis	COPD, chronic bronchitis
J411	Mucopurulent chronic bronchitis	4911	Mucopurul chr bronchitis	COPD, chronic bronchitis
J418	Mixed simple and mucopurulent chronic bronchitis	4918	Chronic bronchitis NEC	COPD, chronic bronchitis
J42	Unspecified chronic bronchitis	4919	Chronic bronchitis NOS	COPD, chronic bronchitis
J430	Unilateral pulmonary emphysema [MacLeod's syndrome]	4928	Emphysema NEC	COPD, chronic bronchitis
J431	Panlobular emphysema	4928	Emphysema NEC	COPD, chronic bronchitis
J432	Centrilobular emphysema	4928	Emphysema NEC	COPD, chronic bronchitis
J438	Other emphysema	4928	Emphysema NEC	COPD, chronic bronchitis
J439	Emphysema, unspecified	4920	Emphysematous bleb	COPD, chronic bronchitis
J440	Chronic obstructive pulmonary disease with acute lower respiratory infection	49321	Ch ob asthma w stat asth	COPD, chronic bronchitis
J441	Chronic obstructive pulmonary disease with (acute) exacerbation	49121	Obs chr bronc w(ac) exac	COPD, chronic bronchitis
J449	Chronic obstructive pulmonary disease, unspecified	496	Chr airway obstruct NEC	COPD, chronic bronchitis
J470	Bronchiectasis with acute lower respiratory infection	4941	Bronchiectasis w ac exac	COPD, chronic bronchitis
J471	Bronchiectasis with (acute) exacerbation	4941	Bronchiectasis w ac exac	COPD, chronic bronchitis
J479	Bronchiectasis, uncomplicated	4940	Bronchiectas w/o ac exac	COPD, chronic bronchitis
J4520	Mild intermittent asthma, uncomplicated	49300	Extrinsic asthma NOS	Asthma
J4521	Mild intermittent asthma with (acute) exacerbation	49302	Ext asthma w(acute) exac	Asthma
J4522	Mild intermittent asthma with status asthmaticus	49301	Ext asthma w status asth	Asthma
J45901	Unspecified asthma with (acute) exacerbation	49392	Asthma NOS w (ac) exac	Asthma
J45902	Unspecified asthma with status asthmaticus	49391	Asthma w status asthmat	Asthma
J45909	Unspecified asthma, uncomplicated	49390	Asthma NOS	Asthma
J45990	Exercise induced bronchospasm	49381	Exercse ind bronchospasm	Asthma
J45991	Cough variant asthma	49382	Cough variant asthma	Asthma
J45998	Other asthma	49390	Asthma NOS	Asthma

Table F-4
ICD-10 Codes used to identify Skin Infection

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
Below, standalone principal diagnosis code:				
L03011	Cellulitis of right finger	6819	Cellulitis of digit NOS	Cellulitis
L03012	Cellulitis of left finger	6819	Cellulitis of digit NOS	Cellulitis
L03019	Cellulitis of unspecified finger	6819	Cellulitis of digit NOS	Cellulitis
L03031	Cellulitis of right toe	68110	Cellulitis, toe NOS	Cellulitis
L03032	Cellulitis of left toe	68110	Cellulitis, toe NOS	Cellulitis
L03039	Cellulitis of unspecified toe	6819	Cellulitis of digit NOS	Cellulitis
L03111	Cellulitis of right axilla	6823	Cellulitis of arm	Cellulitis
L03112	Cellulitis of left axilla	6823	Cellulitis of arm	Cellulitis
L03113	Cellulitis of right upper limb	6823	Cellulitis of arm	Cellulitis
L03114	Cellulitis of left upper limb	6823	Cellulitis of arm	Cellulitis
L03115	Cellulitis of right lower limb	6826	Cellulitis of leg	Cellulitis
L03116	Cellulitis of left lower limb	6826	Cellulitis of leg	Cellulitis
L03119	Cellulitis of unspecified part of limb	6823	Cellulitis of arm	Cellulitis
L03211	Cellulitis of face	6820	Cellulitis of face	Cellulitis
L03221	Cellulitis of neck	6821	Cellulitis of neck	Cellulitis
L03311	Cellulitis of abdominal wall	6822	Cellulitis of trunk	Cellulitis
L03312	Cellulitis of back [any part except buttock]	6822	Cellulitis of trunk	Cellulitis
L03313	Cellulitis of chest wall	6822	Cellulitis of trunk	Cellulitis
L03314	Cellulitis of groin	6822	Cellulitis of trunk	Cellulitis
L03315	Cellulitis of perineum	6822	Cellulitis of trunk	Cellulitis
L03316	Cellulitis of umbilicus	6822	Cellulitis of trunk	Cellulitis
L03317	Cellulitis of buttock	6822	Cellulitis of trunk	Cellulitis
L03319	Cellulitis of trunk, unspecified	6822	Cellulitis of trunk	Cellulitis
L03811	Cellulitis of head [any part, except face]	6828	Cellulitis, site NEC	Cellulitis
L03818	Cellulitis of other sites	6828	Cellulitis, site NEC	Cellulitis
L0390	Cellulitis, unspecified	6829	Cellulitis NOS	Cellulitis
L040	Acute lymphadenitis of face, head and neck	683	Acute lymphadenitis	Cellulitis
L041	Acute lymphadenitis of trunk	683	Acute lymphadenitis	Cellulitis
L042	Acute lymphadenitis of upper limb	683	Acute lymphadenitis	Cellulitis
L043	Acute lymphadenitis of lower limb	683	Acute lymphadenitis	Cellulitis
L048	Acute lymphadenitis of other sites	683	Acute lymphadenitis	Cellulitis

Table F-4 (continued)
ICD-10 Codes used to identify Skin Infection

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
L049	Acute lymphadenitis, unspecified	683	Acute lymphadenitis	Cellulitis
L080	Pyoderma	68600	Pyoderma NOS	Cellulitis
L0881	Pyoderma vegetans	68609	Pyoderma NEC	Cellulitis
L0882	Omphalitis not of newborn	6868	Local skin infection NEC	Cellulitis
L0889	Other specified local infections of the skin and subcutaneous tissue	6868	Local skin infection NEC	Cellulitis
L089	Local infection of the skin and subcutaneous tissue, unspecified	6869	Local skin infection NOS	Cellulitis
L88	Pyoderma gangrenosum	68601	Pyoderma gangrenosum	Cellulitis
Below, combination code—present in principal diagnosis in conjunction with a secondary diagnosis indicating any of the L03x, L04x, L08x, or L88 codes above:				
I70231	Atherosclerosis of native arteries of right leg with ulceration of thigh	70711	Ulcer of thigh	Skin ulcers
I70232	Atherosclerosis of native arteries of right leg with ulceration of calf	70712	Ulcer of calf	Skin ulcers
I70233	Atherosclerosis of native arteries of right leg with ulceration of ankle	70713	Ulcer of ankle	Skin ulcers
I70234	Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot	70714	Ulcer of heel & midfoot	Skin ulcers
I70235	Atherosclerosis of native arteries of right leg with ulceration of other part of foot	70715	Ulcer other part of foot	Skin ulcers
I70238	Atherosclerosis of native arteries of right leg with ulceration of other part of lower right leg	70719	Ulcer oth part low limb	Skin ulcers
I7025	Atherosclerosis of native arteries of other extremities with ulceration	7079	Chronic skin ulcer NOS	Skin ulcers
L89000	Pressure ulcer of unspecified elbow, unstageable	70701	Pressure ulcer, elbow	Skin ulcers
L89001	Pressure ulcer of unspecified elbow, stage 1	70701	Pressure ulcer, elbow	Skin ulcers
L89002	Pressure ulcer of unspecified elbow, stage 2	70701	Pressure ulcer, elbow	Skin ulcers
L89003	Pressure ulcer of unspecified elbow, stage 3	70701	Pressure ulcer, elbow	Skin ulcers
L89004	Pressure ulcer of unspecified elbow, stage 4	70701	Pressure ulcer, elbow	Skin ulcers
L89009	Pressure ulcer of unspecified elbow, unspecified stage	70701	Pressure ulcer, elbow	Skin ulcers

(continued)

Table F-4 (continued)
ICD-10 Codes used to identify Skin Infection

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
L89010	Pressure ulcer of right elbow, unstageable	70701	Pressure ulcer, elbow	Skin ulcers
L89011	Pressure ulcer of right elbow, stage 1	70701	Pressure ulcer, elbow	Skin ulcers
L89012	Pressure ulcer of right elbow, stage 2	70701	Pressure ulcer, elbow	Skin ulcers
L89013	Pressure ulcer of right elbow, stage 3	70701	Pressure ulcer, elbow	Skin ulcers
L89014	Pressure ulcer of right elbow, stage 4	70701	Pressure ulcer, elbow	Skin ulcers
L89019	Pressure ulcer of right elbow, unspecified stage	70701	Pressure ulcer, elbow	Skin ulcers
L89020	Pressure ulcer of left elbow, unstageable	70701	Pressure ulcer, elbow	Skin ulcers
L89021	Pressure ulcer of left elbow, stage 1	70701	Pressure ulcer, elbow	Skin ulcers
L89022	Pressure ulcer of left elbow, stage 2	70701	Pressure ulcer, elbow	Skin ulcers
L89023	Pressure ulcer of left elbow, stage 3	70701	Pressure ulcer, elbow	Skin ulcers
L89024	Pressure ulcer of left elbow, stage 4	70701	Pressure ulcer, elbow	Skin ulcers
L89029	Pressure ulcer of left elbow, unspecified stage	70701	Pressure ulcer, elbow	Skin ulcers
L89100	Pressure ulcer of unspecified part of back, unstageable	70702	Pressure ulcer, upr back	Skin ulcers
L89101	Pressure ulcer of unspecified part of back, stage 1	70702	Pressure ulcer, upr back	Skin ulcers
L89102	Pressure ulcer of unspecified part of back, stage 2	70702	Pressure ulcer, upr back	Skin ulcers
L89103	Pressure ulcer of unspecified part of back, stage 3	70702	Pressure ulcer, upr back	Skin ulcers
L89104	Pressure ulcer of unspecified part of back, stage 4	70702	Pressure ulcer, upr back	Skin ulcers
L89109	Pressure ulcer of unspecified part of back, unspecified stage	70702	Pressure ulcer, upr back	Skin ulcers
L89110	Pressure ulcer of right upper back, unstageable	70702	Pressure ulcer, upr back	Skin ulcers
L89111	Pressure ulcer of right upper back, stage 1	70702	Pressure ulcer, upr back	Skin ulcers
L89112	Pressure ulcer of right upper back, stage 2	70702	Pressure ulcer, upr back	Skin ulcers
L89113	Pressure ulcer of right upper back, stage 3	70702	Pressure ulcer, upr back	Skin ulcers
L89114	Pressure ulcer of right upper back, stage 4	70702	Pressure ulcer, upr back	Skin ulcers
L89119	Pressure ulcer of right upper back, unspecified stage	70702	Pressure ulcer, upr back	Skin ulcers
L89120	Pressure ulcer of left upper back, unstageable	70702	Pressure ulcer, upr back	Skin ulcers
L89121	Pressure ulcer of left upper back, stage 1	70702	Pressure ulcer, upr back	Skin ulcers
L89122	Pressure ulcer of left upper back, stage 2	70702	Pressure ulcer, upr back	Skin ulcers
L89123	Pressure ulcer of left upper back, stage 3	70702	Pressure ulcer, upr back	Skin ulcers
L89124	Pressure ulcer of left upper back, stage 4	70702	Pressure ulcer, upr back	Skin ulcers
L89129	Pressure ulcer of left upper back, unspecified stage	70702	Pressure ulcer, upr back	Skin ulcers
L89130	Pressure ulcer of right lower back, unstageable	70703	Pressure ulcer, low back	Skin ulcers

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
L89131	Pressure ulcer of right lower back, stage 1	70703	Pressure ulcer, low back	Skin ulcers
L89132	Pressure ulcer of right lower back, stage 2	70703	Pressure ulcer, low back	Skin ulcers
L89133	Pressure ulcer of right lower back, stage 3	70703	Pressure ulcer, low back	Skin ulcers
L89134	Pressure ulcer of right lower back, stage 4	70703	Pressure ulcer, low back	Skin ulcers
L89139	Pressure ulcer of right lower back, unspecified stage	70703	Pressure ulcer, low back	Skin ulcers
L89140	Pressure ulcer of left lower back, unstageable	70703	Pressure ulcer, low back	Skin ulcers
L89141	Pressure ulcer of left lower back, stage 1	70703	Pressure ulcer, low back	Skin ulcers
L89142	Pressure ulcer of left lower back, stage 2	70703	Pressure ulcer, low back	Skin ulcers
L89143	Pressure ulcer of left lower back, stage 3	70703	Pressure ulcer, low back	Skin ulcers
L89144	Pressure ulcer of left lower back, stage 4	70703	Pressure ulcer, low back	Skin ulcers
L89149	Pressure ulcer of left lower back, unspecified stage	70703	Pressure ulcer, low back	Skin ulcers
L89150	Pressure ulcer of sacral region, unstageable	70703	Pressure ulcer, low back	Skin ulcers
L89151	Pressure ulcer of sacral region, stage 1	70703	Pressure ulcer, low back	Skin ulcers
L89152	Pressure ulcer of sacral region, stage 2	70703	Pressure ulcer, low back	Skin ulcers
L89153	Pressure ulcer of sacral region, stage 3	70703	Pressure ulcer, low back	Skin ulcers
L89154	Pressure ulcer of sacral region, stage 4	70703	Pressure ulcer, low back	Skin ulcers
L89159	Pressure ulcer of sacral region, unspecified stage	70703	Pressure ulcer, low back	Skin ulcers
L89200	Pressure ulcer of unspecified hip, unstageable	70704	Pressure ulcer, hip	Skin ulcers
L89201	Pressure ulcer of unspecified hip, stage 1	70704	Pressure ulcer, hip	Skin ulcers
L89202	Pressure ulcer of unspecified hip, stage 2	70704	Pressure ulcer, hip	Skin ulcers
L89203	Pressure ulcer of unspecified hip, stage 3	70704	Pressure ulcer, hip	Skin ulcers
L89204	Pressure ulcer of unspecified hip, stage 4	70704	Pressure ulcer, hip	Skin ulcers
L89209	Pressure ulcer of unspecified hip, unspecified stage	70704	Pressure ulcer, hip	Skin ulcers
L89210	Pressure ulcer of right hip, unstageable	70704	Pressure ulcer, hip	Skin ulcers
L89211	Pressure ulcer of right hip, stage 1	70704	Pressure ulcer, hip	Skin ulcers
L89212	Pressure ulcer of right hip, stage 2	70704	Pressure ulcer, hip	Skin ulcers
L89213	Pressure ulcer of right hip, stage 3	70704	Pressure ulcer, hip	Skin ulcers
L89214	Pressure ulcer of right hip, stage 4	70704	Pressure ulcer, hip	Skin ulcers
L89219	Pressure ulcer of right hip, unspecified stage	70704	Pressure ulcer, hip	Skin ulcers
L89220	Pressure ulcer of left hip, unstageable	70704	Pressure ulcer, hip	Skin ulcers
L89221	Pressure ulcer of left hip, stage 1	70704	Pressure ulcer, hip	Skin ulcers
L89222	Pressure ulcer of left hip, stage 2	70704	Pressure ulcer, hip	Skin ulcers

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
L89223	Pressure ulcer of left hip, stage 3	70704	Pressure ulcer, hip	Skin ulcers
L89224	Pressure ulcer of left hip, stage 4	70704	Pressure ulcer, hip	Skin ulcers
L89229	Pressure ulcer of left hip, unspecified stage	70704	Pressure ulcer, hip	Skin ulcers
L89300	Pressure ulcer of unspecified buttock, unstageable	70705	Pressure ulcer, buttock	Skin ulcers
L89301	Pressure ulcer of unspecified buttock, stage 1	70705	Pressure ulcer, buttock	Skin ulcers
L89302	Pressure ulcer of unspecified buttock, stage 2	70705	Pressure ulcer, buttock	Skin ulcers
L89303	Pressure ulcer of unspecified buttock, stage 3	70705	Pressure ulcer, buttock	Skin ulcers
L89304	Pressure ulcer of unspecified buttock, stage 4	70705	Pressure ulcer, buttock	Skin ulcers
L89309	Pressure ulcer of unspecified buttock, unspecified stage	70705	Pressure ulcer, buttock	Skin ulcers
L89310	Pressure ulcer of right buttock, unstageable	70705	Pressure ulcer, buttock	Skin ulcers
L89311	Pressure ulcer of right buttock, stage 1	70705	Pressure ulcer, buttock	Skin ulcers
L89312	Pressure ulcer of right buttock, stage 2	70705	Pressure ulcer, buttock	Skin ulcers
L89313	Pressure ulcer of right buttock, stage 3	70705	Pressure ulcer, buttock	Skin ulcers
L89314	Pressure ulcer of right buttock, stage 4	70705	Pressure ulcer, buttock	Skin ulcers
L89319	Pressure ulcer of right buttock, unspecified stage	70720	Pressure ulcer, stage NOS	Skin ulcers
L89320	Pressure ulcer of left buttock, unstageable	70705	Pressure ulcer, buttock	Skin ulcers
L89321	Pressure ulcer of left buttock, stage 1	70705	Pressure ulcer, buttock	Skin ulcers
L89322	Pressure ulcer of left buttock, stage 2	70705	Pressure ulcer, buttock	Skin ulcers
L89323	Pressure ulcer of left buttock, stage 3	70705	Pressure ulcer, buttock	Skin ulcers
L89324	Pressure ulcer of left buttock, stage 4	70705	Pressure ulcer, buttock	Skin ulcers
L89329	Pressure ulcer of left buttock, unspecified stage	70720	Pressure ulcer, stage NOS	Skin ulcers
L8940	Pressure ulcer of contiguous site of back, buttock and hip, unspecified stage	70703	Pressure ulcer, low back	Skin ulcers
L8941	Pressure ulcer of contiguous site of back, buttock and hip, stage 1	70703	Pressure ulcer, low back	Skin ulcers
L8942	Pressure ulcer of contiguous site of back, buttock and hip, stage 2	70703	Pressure ulcer, low back	Skin ulcers
L8943	Pressure ulcer of contiguous site of back, buttock and hip, stage 3	70703	Pressure ulcer, low back	Skin ulcers
L8944	Pressure ulcer of contiguous site of back, buttock and hip, stage 4	70703	Pressure ulcer, low back	Skin ulcers
L8945	Pressure ulcer of contiguous site of back, buttock and hip, unstageable	70703	Pressure ulcer, low back	Skin ulcers
L89500	Pressure ulcer of unspecified ankle, unstageable	70706	Pressure ulcer, ankle	Skin ulcers
L89501	Pressure ulcer of unspecified ankle, stage 1	70706	Pressure ulcer, ankle	Skin ulcers

(continued)

Table F-4 (continued)
ICD-10 Codes used to identify Skin Infection

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
L89502	Pressure ulcer of unspecified ankle, stage 2	70706	Pressure ulcer, ankle	Skin ulcers
L89503	Pressure ulcer of unspecified ankle, stage 3	70706	Pressure ulcer, ankle	Skin ulcers
L89504	Pressure ulcer of unspecified ankle, stage 4	70706	Pressure ulcer, ankle	Skin ulcers
L89509	Pressure ulcer of unspecified ankle, unspecified stage	70706	Pressure ulcer, ankle	Skin ulcers
L89510	Pressure ulcer of right ankle, unstageable	70706	Pressure ulcer, ankle	Skin ulcers
L89511	Pressure ulcer of right ankle, stage 1	70706	Pressure ulcer, ankle	Skin ulcers
L89512	Pressure ulcer of right ankle, stage 2	70706	Pressure ulcer, ankle	Skin ulcers
L89513	Pressure ulcer of right ankle, stage 3	70706	Pressure ulcer, ankle	Skin ulcers
L89514	Pressure ulcer of right ankle, stage 4	70706	Pressure ulcer, ankle	Skin ulcers
L89519	Pressure ulcer of right ankle, unspecified stage	70706	Pressure ulcer, ankle	Skin ulcers
L89520	Pressure ulcer of left ankle, unstageable	70706	Pressure ulcer, ankle	Skin ulcers
L89521	Pressure ulcer of left ankle, stage 1	70706	Pressure ulcer, ankle	Skin ulcers
L89522	Pressure ulcer of left ankle, stage 2	70706	Pressure ulcer, ankle	Skin ulcers
L89523	Pressure ulcer of left ankle, stage 3	70706	Pressure ulcer, ankle	Skin ulcers
L89524	Pressure ulcer of left ankle, stage 4	70706	Pressure ulcer, ankle	Skin ulcers
L89529	Pressure ulcer of left ankle, unspecified stage	70706	Pressure ulcer, ankle	Skin ulcers
L89600	Pressure ulcer of unspecified heel, unstageable	70707	Pressure ulcer, heel	Skin ulcers
L89601	Pressure ulcer of unspecified heel, stage 1	70707	Pressure ulcer, heel	Skin ulcers
L89602	Pressure ulcer of unspecified heel, stage 2	70707	Pressure ulcer, heel	Skin ulcers
L89603	Pressure ulcer of unspecified heel, stage 3	70707	Pressure ulcer, heel	Skin ulcers
L89604	Pressure ulcer of unspecified heel, stage 4	70707	Pressure ulcer, heel	Skin ulcers
L89609	Pressure ulcer of unspecified heel, unspecified stage	70707	Pressure ulcer, heel	Skin ulcers
L89610	Pressure ulcer of right heel, unstageable	70707	Pressure ulcer, heel	Skin ulcers
L89611	Pressure ulcer of right heel, stage 1	70707	Pressure ulcer, heel	Skin ulcers
L89612	Pressure ulcer of right heel, stage 2	70707	Pressure ulcer, heel	Skin ulcers
L89613	Pressure ulcer of right heel, stage 3	70707	Pressure ulcer, heel	Skin ulcers
L89614	Pressure ulcer of right heel, stage 4	70707	Pressure ulcer, heel	Skin ulcers
L89619	Pressure ulcer of right heel, unspecified stage	70707	Pressure ulcer, heel	Skin ulcers
L89620	Pressure ulcer of left heel, unstageable	70707	Pressure ulcer, heel	Skin ulcers
L89621	Pressure ulcer of left heel, stage 1	70707	Pressure ulcer, heel	Skin ulcers
L89622	Pressure ulcer of left heel, stage 2	70707	Pressure ulcer, heel	Skin ulcers
L89623	Pressure ulcer of left heel, stage 3	70707	Pressure ulcer, heel	Skin ulcers

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
L89624	Pressure ulcer of left heel, stage 4	70707	Pressure ulcer, heel	Skin ulcers
L89629	Pressure ulcer of left heel, unspecified stage	70707	Pressure ulcer, heel	Skin ulcers
L89810	Pressure ulcer of head, unstageable	70709	Pressure ulcer, site NEC	Skin ulcers
L89811	Pressure ulcer of head, stage 1	70709	Pressure ulcer, site NEC	Skin ulcers
L89812	Pressure ulcer of head, stage 2	70709	Pressure ulcer, site NEC	Skin ulcers
L89813	Pressure ulcer of head, stage 3	70709	Pressure ulcer, site NEC	Skin ulcers
L89814	Pressure ulcer of head, stage 4	70709	Pressure ulcer, site NEC	Skin ulcers
L89819	Pressure ulcer of head, unspecified stage	70709	Pressure ulcer, site NEC	Skin ulcers
l89890	Pressure ulcer of other site, unstageable	70709	Pressure ulcer, site NEC	Skin ulcers
l89891	Pressure ulcer of other site, stage 1	70709	Pressure ulcer, site NEC	Skin ulcers
l89892	Pressure ulcer of other site, stage 2	70709	Pressure ulcer, site NEC	Skin ulcers
l89893	Pressure ulcer of other site, stage 3	70709	Pressure ulcer, site NEC	Skin ulcers
l89894	Pressure ulcer of other site, stage 4	70709	Pressure ulcer, site NEC	Skin ulcers
L89899	Pressure ulcer of other site, unspecified stage	70709	Pressure ulcer, site NEC	Skin ulcers
L8990	Pressure ulcer of unspecified site, unspecified stage	70700	Pressure ulcer, site NOS	Skin ulcers
L8991	Pressure ulcer of unspecified site, stage 1	70700	Pressure ulcer, site NOS	Skin ulcers
L8992	Pressure ulcer of unspecified site, stage 2	70700	Pressure ulcer, site NOS	Skin ulcers
L8993	Pressure ulcer of unspecified site, stage 3	70700	Pressure ulcer, site NOS	Skin ulcers
L8994	Pressure ulcer of unspecified site, stage 4	70700	Pressure ulcer, site NOS	Skin ulcers
L8995	Pressure ulcer of unspecified site, unstageable	70700	Pressure ulcer, site NOS	Skin ulcers
L97101	Non-pressure chronic ulcer of unspecified thigh limited to breakdown of skin	70711	Ulcer of thigh	Skin ulcers
L97201	Non-pressure chronic ulcer of unspecified calf limited to breakdown of skin	70712	Ulcer of calf	Skin ulcers
L97301	Non-pressure chronic ulcer of unspecified ankle limited to breakdown of skin	70713	Ulcer of ankle	Skin ulcers
L97401	Non-pressure chronic ulcer of unspecified heel and midfoot limited to breakdown of skin	70714	Ulcer of heel & midfoot	Skin ulcers
L97501	Non-pressure chronic ulcer of other part of unspecified foot limited to breakdown of skin	70715	Ulcer other part of foot	Skin ulcers

(continued)

Table F-4 (continued)
ICD-10 Codes used to identify Skin Infection

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
L97801	Non-pressure chronic ulcer of other part of unspecified lower leg limited to breakdown of skin	70719	Ulcer oth part low limb	Skin ulcers
L97901	Non-pressure chronic ulcer of unspecified part of unspecified lower leg limited to breakdown of skin	70710	Ulcer of lower limb NOS	Skin ulcers
L98411	Non-pressure chronic ulcer of buttock limited to breakdown of skin	7078	Chronic skin ulcer NEC	Skin ulcers
L98491	Non-pressure chronic ulcer of skin of other sites limited to breakdown of skin	7079	Chronic skin ulcer NOS	Skin ulcers

Table F-5
ICD-10 Codes used to identify Dehydration

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label	PAH Category
Below, standalone principal diagnosis code:				
E860	Dehydration	27651	Dehydration	Dehydration, volume depletion
E861	Hypovolemia	27652	Hypovolemia	Dehydration, volume depletion
E869	Volume depletion, unspecified	27650	Volume depletion NOS	Dehydration, volume depletion
Below, combination code—present in principal diagnosis in conjunction with a secondary diagnosis indicating any of the E86x codes above:				
E870	Hyperosmolality and hypernatremia	2760	Hyperosmolality	Fluid or Electrolyte Disorder
E875	Hyperkalemia	2767	Hyperpotassemia	Fluid or Electrolyte Disorder

Table F-6
ICD-10 Codes used to identify UTI

ICD-10 Code	ICD-10 Label	ICD-9 Code	ICD-9 Label		PAH Category
A5601	Chlamydial cystitis and urethritis	5954	Cystitis in oth dis	UTI	
N10	Acute tubulo-interstitial nephritis	59010	Ac pyelonephritis NOS	UTI	
N3000	Acute cystitis without hematuria	5950	Acute cystitis	UTI	
N3001	Acute cystitis with hematuria	5950	Acute cystitis	UTI	
N3080	Other cystitis without hematuria	59589	Cystitis NEC	UTI	
N3081	Other cystitis with hematuria	5954	Cystitis in oth dis	UTI	
N3090	Cystitis, unspecified without hematuria	5959	Cystitis NOS	UTI	
N3091	Cystitis, unspecified with hematuria	5959	Cystitis NOS	UTI	
N390	Urinary tract infection, site not specified	5990	Urin tract infection NOS	UTI	
N413	Prostatocystitis	6013	Prostatocystitis	UTI	

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APPENDIX G
SITE VISIT AND TELEPHONE INTERVIEW MATERIALS

Appendix G-1 describes the NFI 2 Telephone Interview Scheduling Guide. *Appendix G-2* is a brief NFI 2 Project Summary used in an introductory letter to site visit and phone interviewees. *Appendix G-3* contains a confidentiality statement used for NFI 2 data collection. *Appendix G-4* describes NFI 2 interview protocols. *Appendix G-5* includes the interview protocol for Group A facilities, and *Appendix G-6* includes the interview protocol for Group B facilities. *Appendix G-7* contains a NFI 2 site visit announcement to participating facilities selected for site visits during 2017. *Appendix G-8* includes the NFI 2 site visit email to participating facilities.

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Appendix G-1
NFI 2 Telephone Interview Scheduling Guide

Introduction:

Hello, my name is [NAME], and I am calling from RTI International. We are contracted by CMS to do an evaluation of [ECCP NAME]'s (Initiative to reduce avoidable hospitalizations). I am calling to schedule a telephone interview with the DON (Director of Nursing), [CONFIRM NAME]. Is he/she available?

If directed to VoiceMail:

Hi [FACILITY CONTACT NAME], my name is [NAME], and I am calling from RTI International. I am calling to schedule a telephone interview with the DON or another staff member who is most knowledgeable about [ECCP NAME] Initiative. This is a CMS-funded program to reduce avoidable hospitalizations of long term care residents.

If you could please call me back to schedule an interview at [PHONE NUMBER], we would greatly appreciate it. We're hoping to have the call scheduled within the next week or two. We thank you so much for your time, and we hope you have a great day.

If get person you want to interview:

Hi [FACILITY CONTACT NAME], my name is [NAME], and I am calling from RTI International. We are under contract with CMS to conduct an evaluation of the [ECCP NAME] Initiative. I'd like to schedule a phone interview with you to discuss your experiences with the Initiative. Do you have a few moments now to schedule an interview later this week or next week?

Key points for phone discussion

• RTI has been contracted by CMS to evaluate the [ECCP NAME] Initiative. If you could provide your email address, I will email you a summary of the evaluation that explains our role in more detail [GET EMAIL ADDRESS]. The purpose of the interview is to understand how the [ECCP NAME] Initiative is being implemented, and how it is affecting your facility.

• Each telephone interview will last no more than 30 minutes. The interviews will not be recorded; neither your facility's name, nor the name of anyone being interviewed will be used in the analysis or the presentation of the information to CMS. All research findings will be presented in aggregate. I will send a confidentiality agreement in the email with the evaluation summary.

• We are available for telephone interviews at the following times [CONFIRM THAT THE TIMES AND DATES ARE IN THE CORRECT TIME ZONE!]:

    1. [TIME AND DATE OPTION 1]
    2. [TIME AND DATE OPTION 2]
    3. [TIME AND DATE OPTION 3]

Please let us know which of these works best for you, and if none of these options work for your schedule, please suggest alternative dates and times.

Thank you for your time, we look forward to speaking with you on [REPEAT TIME AND DATE].

Waltham Office

307 Waverley Oaks Road, Suite 101 • Waltham, MA 02452-8413 • USA
Telephone +1.781.434.1700 • Fax +1.781.434.1701 • www.rti.org

Appendix G-2
NFI 2 Project Summary

Evaluation of the Initiative to Reduce Avoidable Hospitalizations
Among Nursing Facility Residents: Payment Reform

To whom it may concern:

As you are aware, six Enhanced Care and Coordination Provider (ECCP) organizations have
partnered with Centers for Medicare & Medicaid Services (CMS) to conduct the Initiative to
Reduce Avoidable Hospitalizations among Nursing Facility Residents: Payment Reform.
Reducing avoidable hospital admissions can improve quality of life, quality of care, and health
outcomes for nursing facility residents. RTI International is an independent, non-profit research
organization that is contracted by CMS to conduct an evaluation of this Initiative. The
evaluation's goals are to identify payment methods and clinical intervention models that are most
promising in reducing avoidable hospitalizations among nursing facility residents. Our site visits
and telephone interviews are part of the study to learn how this Initiative is implemented in the
six ECCPs. For each ECCP, we are conducting site visits and telephone interviews with the
participating facilities to talk with staff involved in the Initiative. Our aim is to learn from your
experiences—what works, what doesn't. Please know that this is not an audit, survey, or
assessment of your knowledge in any way. There are no wrong answers!

Our interview protocols and procedures have been reviewed by RTI's Institutional Review Board
(IRB) to ensure that participation in these interviews does not pose any substantial risks to either
staff or residents. All the information we are collecting is confidential; we never share personal
names, positions, individual nursing facility names, or interview details with CMS. Our findings
will be aggregated by ECCP and will not be reported in any way that is attributable directly to
you or your facility.

We appreciate you taking the time to speak with us, and we look forward to hearing your
thoughts and comments on how the Initiative is progressing.

Sincerely,

Galina Khatutsky,
Associate Project Director, *Evaluation of the Initiative to Reduce Avoidable Hospitalizations
among Nursing Facility Residents*
RTI International

Appendix G-3
NFI 2 Confidentiality Statement

**INITIATIVE TO REDUCE AVOIDABLE HOSPITALIZATIONS
AMONG NURSING FACILITY RESIDENTS: PAYMENT REFORM**

CMS has contracted with **RTI International (RTI)** to conduct the evaluation of the CMS Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents: Payment Reform. This evaluation has two components: process and outcome.

Components of RTI's Evaluation

Process Evaluation

- The process evaluation uses qualitative methods to collect and analyze primary data from annual site visits and telephone interviews. RTI uses formal semi-structured protocols to ensure that standardized data are collected across participating facilities.

- The goal of the process evaluation is to determine if the Initiative was implemented as planned, and to identify: (1) best practices and elements of the Initiative that are associated with improved clinical outcomes (e.g., reduced hospitalizations); and (2) challenges and barriers to implementation. In later years, the evaluation will examine lessons learned about the implementation process and issues related to sustainability.

- The data collected will: (1) provide a better understanding of the implementing organization and the nursing facilities' processes related to implementing various models and payment mechanisms for the Initiative; (2) assess the fidelity of actual interventions to the original design; and (3) identify implementation challenges and barriers, and (4) compare and contrast implementation experiences of Group A and Group B facilities. Data collected also will provide information about which intervention features are most (or least) promising in terms of designing a national initiative to reduce avoidable hospitalizations among nursing facility residents.

- The process evaluation also includes web-based surveys of participating facilities and of participating practitioners.

- Process evaluation data complement quantitative analyses of secondary data by providing information about specific intervention features that could be causing the changes we see in the secondary data. The qualitative analyses provide important contextual information to understand the findings of the outcome evaluation.

Outcome Evaluation

- The goal of the outcome evaluation is to assess the effectiveness of the overall Initiative and to identify features of the implemented models associated with improved outcomes (e.g., fewer avoidable hospitalizations). The evaluation focuses on Medicare/Medicaid utilization, expenditure, and quality measures.

- The outcome evaluation uses quantitative methods to parse out the effects of the overall Initiative and of intervention components. Comparison facilities are matched to facilities engaged in the Initiative, separately for Group A and Group B, to assess the effectiveness of the interventions.

- The evaluation analyzes secondary data, such as Medicare and Medicaid claims and Minimum Data Set (MDS) assessments, provided by CMS.

What the Evaluation is NOT

- The evaluation is **NOT** a federal or state facility survey, nor is the evaluation an assessment of whether a facility or clinical practice complies with federal regulations or deviates from a specific quality protocol.

- The evaluation is **NOT** seeking any specific type of responses from interviewees; there are no "right" or "wrong" responses. We value all opinions and feedback.

ECCP Interview Protocol

- Please tell me about the CMS Initiative to Reduce Avoidable Hospitalizations. What is your role in this effort?

- Have there been any changes to your ECCP staffing structure or functioning due to the move to Phase 2?

- What interactions did you have with CMS as you began rolling out Phase 2? Please describe any CMS or SSS-T Sharing Collaborative activities you have attended. Have you adopted any new practices because of the Sharing Collaborative? Please describe how you are using the NFI Connect portal.

- How did your ECCP roll out the Phase 2 Initiative within your organization? What were the first steps taken, and what has happened since then?

- What were the differences in rolling out the Initiative between Group A and Group B facilities?

- What has your experience been with training the participating facility staff? Please describe your ECCP's Learning Community activities. What have been the successes and challenges related to organizing and running these activities? How are you addressing the challenges?

- Have any residents who participated in Phase 1 opted out of Phase 2? What were their reasons or their families' reasons? Have any residents in Group A facilities opted out of the Initiative? What were their reasons or their families' reasons?

- How were practitioners recruited? What's the best way to reach practitioners (e.g., email, phone, etc.)? Have any practitioners declined to participate or dropped out of the Initiative? If so, why? Do you believe you have a sufficient number of practitioners in each facility? How did you evaluate practitioner use of Health IT or telemedicine during recruitment?

- How many practitioner groups have you worked with to get vetted physician lists? Would you be able to share contact information for your 3 biggest practitioner groups?

- What have been the successes and challenges in using the new billing codes? Have Group A and Group B facilities had different successes and challenges? What challenges have you faced with provider reimbursement? How are you addressing the challenges?

- What effect do you think the Phase 2 Initiative is having on end-of-life care and advanced care planning? What are the greatest successes and challenges in this area? How are you addressing the challenges (or planning to address them)?

- What have been the successes and challenges in identifying and treating the 6 qualifying conditions? Have Group A and Group B facilities had different successes/challenges? How are you addressing challenges?

- Are local hospitals aware of the Initiative? Have hospital readmission policies affected the Initiative or hospitals' relationships with facilities? How has the ability to treat the 6 qualifying conditions affected facility relationships with area hospitals?

- Are there any other programs or policies that address nursing facility hospitalizations at the state or local level? How about similar efforts at the corporate or organization level? Have these programs or policies helped or hindered your efforts on the Initiative?

- How do you think the Phase 2 Initiative is affecting hospitalization rates? What are the greatest successes and challenges in this area? How are you addressing the challenges (or planning to address them)?

- How are you measuring the success of the Phase 2 Initiative? What data are you collecting, other than the required CMS data, and how are you collecting it? How do you plan to use the data you are collecting?

- Overall, what is working best with Phase 2 of the Initiative? Why do you think that is? What aspects are not working as well? Why do you think that is?

- What one component do you feel is most critical to have in place to ensure that the Initiative is successful?

- What are the planned next steps for the Phase 2 Initiative? Next 6 months? Next year?

- Is there anything you would like to share about the Phase 2 Initiative that we have not already discussed?

Appendix G-5
Group A Facility Interview Protocol

- Please tell me about the CMS Initiative to Reduce Avoidable Hospitalizations. What is your role in this effort? Why did your facility decide to participate in the Initiative?

- Before participating in the Initiative, what steps had your facility taken to reduce avoidable hospitalizations in the long-stay population?

- Before participating in the Initiative, did your staff use INTERACT or similar tools? How has tool usage changed since then?

- What steps did your facility take to pass the readiness review for the Initiative? Did you make any changes to your infrastructure or health IT system? Improvements to your diagnostic or clinical capabilities? What is the status of these systems/new capabilities?

- How did your facility roll out the Initiative? What were the first steps taken and what has happened since then?

- How were staff introduced to the Initiative? What type of training did staff receive, if any? Did training differ by role (e.g. nursing staff vs. practitioners)? Who provided the training?

- What has been the staff reaction to the Initiative? Has staff reaction differed by role? What have been the successes and challenges related to staff reaction? How are you addressing the challenges?

- Have you hired any new staff because of the Initiative? If yes, what types of staff have you hired?

- What did the ECCP do to help you implement the payment reform (e.g., purchase equipment, arrange vendor contracts, etc.)? Are they continuing to assist? To your knowledge, do they work directly with practitioners?

- What other activities, if any, has the ECCP provided or helped your facility staff to implement?

- Please describe any ECCP-hosted Learning Community activities or trainings you have attended. What was your reaction to these activities? Have your practitioners attended any of these activities or trainings? Have you adopted any new practices because of the Learning Community activities?

- Have any residents opted out of the Initiative? What were their reasons or their families' reasons?

- How do you identify residents with the 6 qualifying conditions? What have been your successes and challenges related to identifying and treating the 6 qualifying conditions? How are you addressing the challenges?

- Do you have any practitioners who are on-site in the facility on a daily basis or who come several times each week? If yes, what are those practitioners' roles in the Initiative?

- Have physician practice patterns, schedules, or contracts changed in any way with this Initiative? How so? What response from practitioners have you received regarding coming in to diagnose the 6 conditions? What about the response to the care conferences? What other feedback, if any, have you received from practitioners regarding the Initiative?

- Do you have a sufficient number of certified practitioners participating in the Initiative? How many do you have? Do you have any practitioners who started and then opted out of the Initiative? If so, what were their reasons?

- To the best of your knowledge, have practitioners submitted claims for this Initiative? What successes or challenges are they encountering with submitting claims?

- How many claims do you think your facility has submitted so far? What have been the successes and challenges with regard to use of the new billing codes? How are you addressing the challenges?

- How is your facility planning to use the reimbursement payments you receive through the Initiative?

- What effect do you think the Initiative is having on end-of-life care and advanced care planning? What are the greatest successes and challenges in this area? How are you addressing the challenges (or planning to address them)?

- Are local hospitals aware of the Initiative? Have hospital readmission policies affected the Initiative or hospitals' relationships with your facility? How has your ability to treat the 6 qualifying conditions affected your relationships with area hospitals?

- Are there any other programs or policies that address nursing facility hospitalizations at the state or local level? How about similar efforts at the corporate or organization level? Have these programs or policies helped or hindered your efforts on the Initiative?

- How do you think the Initiative is affecting your facility's hospitalization rates? What are the greatest successes and challenges in this area? How are you addressing the challenges (or planning to address them)?

- How do you think the Initiative is affecting nonparticipating residents in your facility? Do you have any residents who are receiving care from NPs or PAs who are not facility or ECCP staff? Are any of these residents managed care/institutional special needs plan (I-SNP) enrollees? Have any residents disenrolled from managed care to be part of the Initiative? Has there been any change in the tendency of residents to enroll in a Medicare Advantage plan such as an institutional special needs plan?

- How are you measuring the success of the Initiative? Who collects data for your facility? What data are you collecting, other than CMS-required data, and how are you collecting it? How do you plan to use the data you're collecting?

- Overall, what is working best with Phase 2 of the Initiative? Why do you think that is? What aspects are not working as well? Why do you think that is?

- What one component do you feel is most critical to have in place to ensure that the Initiative is successful?

- What are your facility's planned next steps for the Initiative?

- Is there anything you would like to share about the Initiative that we have not already discussed?

If time allows, ask:

- If this Initiative included written materials (e.g., Stop and Watch or Information about the 6 conditions) in languages other than English, what would be your preferred language?

Appendix G-6
Group B Facility Interview Protocol

- Please tell me about the CMS Phase 2 Initiative to reduce avoidable hospitalizations. What is your role in this effort?

- What steps did your facility take to pass the readiness review for the Phase 2 Initiative? Did you make any changes to your health IT system? Improvements to your diagnostic or clinical capabilities? What is the status of these systems/new capabilities?

- How did your facility roll out Phase 2 of the Initiative? What were the first steps taken, and what has happened since then?

- How were staff introduced to the Phase 2 Initiative? What type of training did staff receive, if any? Did training differ by role (e.g., nursing staff vs. practitioners)? Who provided the training?

- What has been the staff reaction to the Phase 2 Initiative? Has staff reaction differed by role? What have been the successes and challenges related to staff reaction? How are you addressing the challenges?

- Have you hired any new staff because of Phase 2? If yes, what types of staff have you hired?

- What did the ECCP do to help you implement Phase 2 (e.g., purchase equipment, arrange vendor contracts, etc.)? Are they continuing to assist? To your knowledge, do they work directly with practitioners?

- What other activities, if any, has the ECCP provided or helped your facility staff to implement?

- Please describe any ECCP-hosted Learning Community activities or trainings you have attended. What was your reaction to these activities? Have your practitioners attended any of these activities or trainings? Have you adopted any new practices because of the Learning Community activities?

- How has the role of the ECCP nurse changed? Is the ECCP nurse full-time or part-time in the facility?

- Have residents who participated in Phase 1 opted out of Phase 2? What were their reasons or their families' reasons?

- How do you identify residents with the 6 qualifying conditions? How is the ECCP nurse involved in this process? What have been your successes and challenges related to identifying and treating the 6 qualifying conditions? How are you addressing the challenges?

- Do you have any practitioners who are on-site in the facility on a daily basis or who come several times each week? If yes, what are those practitioners' roles in the Initiative?

- Have physician practice patterns, schedules, or contracts changed in any way with this Initiative? How so? What response from practitioners have you received regarding coming in to diagnose the 6 conditions? What about the response to the care conferences? What other feedback, if any, have you received from practitioners regarding the Initiative?

- Do you have a sufficient number of certified practitioners participating in the Initiative? How many do you have? Do you have any practitioners who started and then opted out of the Initiative? If so, what were their reasons?

- To the best of your knowledge, have practitioners submitted claims for this Initiative? What successes or challenges are they encountering with submitting claims?

- How many claims do you think your facility has submitted so far? What have been the successes and challenges with regard to use of the new billing codes? How are you addressing the challenges?

- How is your facility planning to use the reimbursement payments you receive through the Initiative?

- How has implementation of the new billing codes in Phase 2 influenced the practices you put in place during Phase 1 of the Initiative? How has tool use changed (e.g., INTERACT SBAR, Stop and Watch, Care Paths, etc.)? How have other components changed (e.g., medication management, telemedicine, staff stability or other ECCP-specific components of Phase 1)?

- What effect do you think the Initiative is having on end-of-life care and advanced care planning? What are the greatest successes and challenges in this area? How are you addressing the challenges (or planning to address them)?

- Are local hospitals aware of the Initiative? Have hospital readmission policies affected the Initiative or hospitals' relationships with your facility? How has your ability to treat the 6 qualifying conditions affected your relationships with area hospitals?

- Are there any other programs or policies that address nursing facility hospitalizations at the state or local level? How about similar efforts at the corporate or organization level? Have these programs or policies helped or hindered your efforts on the Initiative?

- How do you think the Initiative is affecting your facility's hospitalization rates? What are the greatest successes and challenges in this area? How are you addressing the challenges (or planning to address them)?

- How do you think the Initiative is affecting nonparticipating residents in your facility? Do you have any residents receiving care from NPs or PAs who are not facility or ECCP staff? Are any of these residents institutional special needs plan (I-SNP)/managed care enrollees? Have any residents disenrolled from managed care to be part of the Initiative, and why? Are residents newly enrolling in Medicare Advantage plans in numbers different from past years?

- How are you measuring the success of the Phase 2 Initiative? Who collects data for your facility? What data are you collecting, other than CMS-required data, and how are you collecting it? How do you plan to use the data you're collecting?

- Overall, what is working best with Phase 2 of the Initiative? Why do you think that is? What aspects are not working as well? Why do you think that is?

- What one component do you feel is most critical to have in place to ensure that the Initiative is successful?

- What are your facility's planned next steps for the Initiative?

- Is there anything you would like to share about the Initiative that we have not already discussed?

If time allows, ask:

- If this Initiative included written materials (e.g., Stop and Watch or Information about the 6 conditions) in languages other than English, what would be your preferred language?

Appendix G-7
NFI 2 Site Visit Announcement

Dear <ECCP CONTACT NAME>,

In addition to the telephone interviews that RTI is currently conducting with participating <ECCP NAME> facilities, our CMS contract to evaluate the Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents also requires us to conduct in-person site visits. We understand that you, your team, and your participating facilities, are very busy, so we wanted to give you a head's up regarding our next steps for the 2017 site visits.

This year, we plan to be in <NAME OF STATE(S)> during **the weeks of** <DATES>. We would like to visit your offices on **Monday (**<DATE>**)** to interview <**NAMES OF KEY STAFF, KEY JOB TITLES, OR KEY PARTNER ORGANIZATIONS**>. If you've hired any new staff members or added any new roles, we would love to speak with those individuals as well.

Then, just as in previous years, we will visit four participating **Group B** facilities on each of the next four days, **Tuesday-Friday (**<DATES>**)**. Additionally, we will visit four participating **Group A** facilities, one per day, **Monday-Thursday (**<DATES>**)**.

Date	Group	Facility Name
Monday, <**DATE**>	ECCP	ECCP Headquarters
Tuesday, <**DATE**>	Group B	<**FACILITY NAME**>
Wednesday, <**DATE**>	Group B	<**FACILITY NAME**>
Thursday, <**DATE**>	Group B	<**FACILITY NAME**>
Friday, <**DATE**>	Group B	<**FACILITY NAME**>
Alternate	Group B	<**FACILITY NAME**>
Monday, <**DATE**>	Group A	<**FACILITY NAME OR TBD**>
Tuesday, <**DATE**>	Group A	<**FACILITY NAME OR TBD**>
Wednesday, <**DATE**>	Group A	<**FACILITY NAME OR TBD**>
Thursday, <**DATE**>	Group A	<**FACILITY NAME OR TBD**>
Alternate	Group A	<**FACILITY NAME OR TBD**>

Please review the attached table of facilities for possible site visits this year. <**IF GROUP A ARE NOT CHOSEN YET, PROVIDE DATE BY WHICH YOU WILL FOLLOW UP WITH GROUP A FACILITY LIST**>. We will plan to visit only 4 Group A and 4 Group B facilities, but we include one extra facility from each Group as a backup in case a planned facility is undergoing a survey or has another unexpected emergency that prevents us from visiting. Attached are a project summary and confidentiality statement for you to share with facilities. Please inform these facility administrators that <**RTI STAFF MEMBER NAME**> will be contacting them via email in <**MONTH YOU WILL EMAIL FACILITIES**> to set exact schedules, times, and details for the site visits.

In the meantime, please don't hesitate to contact me if you have any questions about out upcoming site visits. As always, many thanks for your cooperation; we're very excited to catch up with you and your team again soon!

Sincerely,

<**ECCP TEAM LEAD**>

Appendix G-8
NFI 2 Site Visit Email to Facilities

Dear **<ADMINISTRATOR NAME>**,

I am emailing from RTI to follow up on <**ECCP CONTACT PERSON'S NAME**> recent contact with you regarding the <**ECCP NAME>** Initiative in your facility. You may recall that RTI is contracted by the Centers for Medicare & Medicaid Services (CMS) to evaluate the Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents. RTI will interview staff within nursing facilities partnering with <**ECCP NAME**> to learn more about the Initiative. More information about our evaluation and confidentiality statement are attached.

We have scheduled <FACILITY NAME> for a visit on <DAY AND DATE>. On <**DATE**>, our team of three plans to arrive around 8:30am and will stay until the early afternoon, though we can adjust our arrival depending on the availability of your staff. It will be helpful for us to have a potential schedule of times that your staff will be available on the day of our visit. Ideally, the interviews with the Administrator and DON could be among the first in the morning.

We are interested in speaking with the following members of your facility team:

- Administrator
- Director of Nursing
- Medical Director or Other Physician
- Physician Extender (e.g., Nurse Practitioner)
- Billing Coordinator or Business Manager
- Charge Nurse or Unit Manager
- MDS Nurse
- Any other key staff actively participating in and knowledgeable about the 6 conditions or billing aspects of the Initiative
- **<ECCP NURSE> GROUP B ONLY**
- CNA **GROUP B ONLY**
- Education Director **GROUP B ONLY**
- If possible, we would like to speak with a resident or family member, depending on willingness and availability **GROUP B ONLY**

Most interviews take 15-20 minutes, though interviews with staff who are most knowledgeable about or involved with the Initiative could take longer. We prefer to conduct all interviews one-on-one to ensure confidentiality. The notes from our interviews also maintain confidentiality; we never mention any individual persons or facilities. For this reason, it would be helpful if a private space (e.g., conference room or unused office) is available for the day of our interviews.

Please respond to confirm that this date works for your facility. If possible, it also would be helpful for you to draft a tentative interview schedule for us. We will continue to be in contact with your facility as planning for the site visit progresses. In the meantime, please don't hesitate to reach out to us via email with any additional questions.

Many thanks in advance. We appreciate your time, and we are looking forward to visiting soon.

Sincerely,

<ECCP TEAM LEAD>

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APPENDIX H
RESIDENT-LEVEL MEASURES OF SERVICE UTILIZATION, EXPENDITURES, END-OF-LIFE CARE, AND MDS-BASED QUALITY OUTCOMES

Table H-1 describes the outcome measures for service utilization, expenditures, end-of-life care, and MDS-based quality outcomes at the resident level. For each measure, the definition, variable type, data source, and whether it is included in the current report are indicated.

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Table H-1
Measures of service utilization, expenditures, end-of-life care, and MDS-based quality outcomes at the resident level

Measure	Definition	Variable Type	Data Source	Included in Current Report
Service Utilization:				
All-cause hospitalization	Whether a resident had an inpatient admission; or total count of inpatient admissions.	Dichotomous or count	Medicare Part A claims	Yes
Potentially avoidable hospitalization	Whether a resident had an inpatient admission for any of the conditions defined as potentially avoidable; or total count of inpatient admissions so defined.	Dichotomous or count	Medicare Part A claims	Yes
Potentially avoidable hospitalization, six qualifying conditions combined	Whether a resident had an inpatient admission for any of the six qualifying conditions; or total count of inpatient admissions for any of the six qualifying conditions.	Dichotomous or count	Medicare Part A claims	Yes
Potentially avoidable hospitalization, six qualifying conditions, reported separately	Whether a resident had an inpatient admission for each of the six qualifying conditions, reported separately; or total count of inpatient admissions for each of the six qualifying conditions, reported separately.	Dichotomous or count	Medicare Part A claims	Yes
All-cause ED visit	Whether a resident had an ED visit that did not lead to inpatient admission, identified as RCC = (045X or 0981) or HCPC code = (99281-99285); or total count of ED visits.	Dichotomous or count	Medicare outpatient (institutional) claims	Yes
Potentially avoidable ED visit	Whether a resident had an ED visit (as identified above) for any of the same conditions as used to define potentially avoidable hospitalizations; or total count of ED visits so defined.	Dichotomous or count	Medicare outpatient (institutional) claims	Yes
Potentially avoidable ED visit, six qualifying conditions, combined	Whether a resident had an ED visit (as identified above) for any of the six qualifying conditions; or total count of ED visits for any of the six qualifying conditions.	Dichotomous or count	Medicare outpatient (institutional) claims	Yes

(continued)

H-3

Measures of service utilization, expenditures, and quality outcomes at the resident level

Measure	Definition	Variable Type	Data Source	Included in Current Report
Potentially avoidable ED visit, six qualifying conditions, reported separately	Whether a resident had an ED visit (as identified above) for each of the six qualifying conditions, reported separately; or total count of ED visits for each of the six qualifying conditions, reported separately.	Dichotomous or count	Medicare outpatient (institutional) claims	Yes
All-cause observation stay	Whether a resident had an observation stay that did not lead to inpatient admission, identified as RCC = (0760 or 0762) and HCPC = (G0378 or G0379); or total count of observations stays.	Dichotomous or count	Medicare outpatient (institutional) claims	No
Potentially avoidable observation stay	Whether a resident had an observation stay (as identified above) for any of the same conditions as used to define potentially avoidable hospitalizations; or total count of observation stays such defined.	Dichotomous or count	Medicare outpatient (institutional) claims	No
Potentially avoidable hospitalization, ED visit or observation stay, six qualifying conditions combined	Whether a resident had an inpatient admission, ED visit, or observation stay (as identified above) for any of the six qualifying conditions; or total count of inpatient admissions, ED visits, and observation stays for any of the six qualifying conditions	Dichotomous or count	Medicare Part A and outpatient (institutional) claims	No
Program Expenditures:				
Medicare payment, overall	Total Medicare payment per beneficiary for all covered services, including inpatient, outpatient, SNF, carrier file services, hospice, home health, durable medical equipment, and prescription drugs.	Continuous	Medicare Parts A/B/D claims	Yes
Medicare payment, by subcategory below:				
All-cause hospitalizations	Total Medicare payment per beneficiary for all-cause inpatient admissions.	Continuous	Medicare Part A claims	Yes

(continued)

H-4

Measure	Definition	Variable Type	Data Source	Included in Current Report
Potentially avoidable hospitalizations	Total Medicare payment per beneficiary for inpatient admissions for any of the conditions defined as potentially avoidable.	Continuous	Medicare Part A claims	Yes
Potentially avoidable hospitalization, six qualifying conditions combined	Total Medicare payment per beneficiary for potentially avoidable inpatient admissions for any of the six qualifying conditions.	Continuous	Medicare Part A claims	Yes
Potentially avoidable hospitalization, six qualifying conditions, reported separately	Total Medicare payment per beneficiary for potentially avoidable inpatient admissions for each of the six qualifying conditions, reported separately.	Continuous	Medicare Part A claims	Yes
All-cause ED visits	Total Medicare payment per beneficiary for all-cause ED visits that did not lead to inpatient admission, identified as RCC = (045X or 0981) or HCPC code = (99281-99285).	Continuous	Medicare outpatient (institutional) claims	Yes
Potentially avoidable ED visits	Total Medicare payment per beneficiary for ED visits (as identified above) for any of the same conditions as used to define potentially avoidable hospitalizations.	Continuous	Medicare outpatient (institutional) claims	Yes
Potentially avoidable ED visit, six qualifying conditions combined	Total Medicare payment per beneficiary for potentially avoidable ED visits for any of the six qualifying conditions.	Continuous	Medicare outpatient (institutional) claims	Yes
Potentially avoidable ED visit, six qualifying conditions, reported separately	Total Medicare payment per beneficiary for potentially avoidable ED visits for each of the six qualifying conditions, reported separately.	Continuous	Medicare outpatient (institutional) claims	Yes

(continued)

H-5

Measure	Definition	Variable Type	Data Source	Included in Current Report
All-cause observation stays	Total Medicare payment per beneficiary for observation stays that did not lead to inpatient admission, identified as RCC = (0760 or 0762) and HCPC = (G0378 or G0379).	Continuous	Medicare outpatient (institutional) claims	No
Potentially avoidable observation stays	Total Medicare payment per beneficiary for observation stays (as identified above) for any of the same conditions as used to define potentially avoidable hospitalizations.	Continuous	Medicare outpatient (institutional) claims	No
Potentially avoidable hospitalization, ED visit or observation stay, six qualifying conditions combined	Total Medicare payment per beneficiary for inpatient stays, ED visits, and observation stays (as identified above) for any of the six qualifying conditions.	Continuous	Medicare Part A and outpatient (institutional) claims	No
SNF services	Total Medicare payment per beneficiary for SNF services.	Continuous	Medicare Part A claims	No
Hospice services	Total Medicare payment per beneficiary for hospice services.	Continuous	Medicare Part A claims	No
Carrier file services	Total Medicare payment per beneficiary for carrier file services.	Continuous	Medicare Part B claims	No
Physician services	Total Medicare payment per beneficiary for physician services.	Continuous	Medicare Part B claims	No
Durable medical equipment	Total Medicare payment per beneficiary for durable medical equipment.	Continuous	Medicare Part B claims	No
Part D prescription drugs	Total Medicare payment per beneficiary for Part D prescription drugs.	Continuous	Medicare Part D claims	No

(continued)

Measure	Definition	Variable Type	Data Source	Included in Current Report
Medicaid payment, overall	Total Medicaid payment per beneficiary for long-stay/custodial nursing facility care, and Medicaid cost sharing of Medicare payments for all covered services.	Continuous	T-MSIS Medicaid claims	No
Medicare-Medicaid payments, combined	Total combined Medicare and Medicaid payments (as specified above) per beneficiary.	Continuous	Medicare Parts A/B/D and T-MSIS Medicaid claims	No
Quality Outcomes:				
Catheter inserted and left in bladder	The proportion of observed quarters with data on the presence of indwelling catheters; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No
Physically restrained	The proportion of observed quarters with data on the presence of daily physical restraints (trunk restraint used in bed, limb restraint used in bed, trunk restraint used in chair or out of bed, limb restraint used in chair or out of bed, and chair prevents rising used in chair or out of bed); or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No
Antipsychotic medication use	The proportion of observed quarters with data indicating that a resident received an antipsychotic medication; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No
Antianxiety or hypnotic medication use	The proportion of observed quarters with data indicating that a resident received antianxiety or hypnotic medications; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No
One or more falls with injury	The proportion of observed quarters with data on the presence of one or more look-back scan assessments that indicate one or more falls that resulted in injury; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No

(continued)

Table H-1 (continued)
Measures of service utilization, expenditures, and quality outcomes at the resident level

Measure	Definition	Variable Type	Data Source	Included in Current Report
Self-report moderate to severe pain	The proportion of observed quarters with data on the presence of either (1) almost constant or frequent moderate to severe pain in the last 5 days or (2) any very severe/horrible pain in the last 5 days; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No
Pressure ulcers Stage II or higher	The proportion of observed quarters with data on the presence of Stage II–IV or unstageable pressure ulcers; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No
Decline in ADLs	The proportion of observed quarters with indicating that a resident's need for help with late-loss ADLs has increased. An increase is defined as an increase in two or more coding points in one late-loss ADL item or one point increase in coding points in two or more late-loss ADL items; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No
Urinary tract infection	The proportion of observed quarters with data on the presence of urinary tract infection within the last 30 days; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No
Weight loss	The proportion of observed quarters with data indicating that a resident has a weight loss of 5 percent or more in the last month or 10 percent or more in the last 6 months and was not on a physician prescribed weight-loss regimen; or whether this adverse outcome is observed for at least one quarter.	Proportion or Dichotomous	MDS 3.0	No

Measure	Definition	Variable Type	Data Source	Included in Current Report
End-of-Life Outcomes:				
Mortality	Whether a resident died in the nursing facility or within 30 days of discharge.	Dichotomous	MDS 3.0 and Medicare enrollment data	No
Site of mortality	Whether a resident died in the nursing facility or elsewhere within 30 days of discharge.	Dichotomous	MDS 3.0 and Medicare enrollment data	No
Length of terminal hospital stay (residents who died in a hospital only)	Number of days in the terminal hospital stay for residents who died in a hospital.	Continuous	Medicare Part A claims	No
Hospice use	Whether a resident used hospice care in the last 6 months of life.	Dichotomous	Medicare enrollment data and Part A claims	No
Length of hospice use	Number of days under hospice care in the last 6 months.	Continuous	Medicare enrollment data and Part A claims	No
Hospice expenditures	Total Medicare payment per beneficiary in the last 6 months for hospice services.	Continuous	Medicare Part A claims	No

NOTES: ADLs = Activities of Daily Living; ED = Emergency Department; HCPCS = Healthcare Common Procedure Coding System; MDS 3.0 = Nursing Home Minimum Data Set resident assessment data; RCC = Revenue Center Code; SNF = Skilled Nursing Facility.