February 2017

Evaluation of the Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents: Annual Report Project Year 4—Appendices

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EVALUATION OF THE INITIATIVE TO REDUCE AVOIDABLE HOSPITALIZATIONS AMONG NURSING FACILITY RESIDENTS: ANNUAL REPORT (CLEARANCE COPY) PROJECT YEAR 4—APPENDICES

Government Task Lead: Jean Gaines, PhD, RN

RTI International

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February 2017

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APPENDIX A
PARTICIPATING FACILITIES (DECEMBER 2015)

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Participating ECCP facilities as of December 2015

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
015027	WETUMPKA HEALTH AND REHABILITATION, LLC	1825 HOLTVILLE ROAD	WETUMPKA	AL	36092	2/11/2013
015091	NORTH HILL NURSING AND REHABILITATION CTR, LLC	200 NORTH PINE HILL ROAD	BIRMINGHAM	AL	35217	2/11/2013
015115	CORDOVA HEALTH AND REHABILITATION, LLC	70 HIGHLAND STREET WEST	CORDOVA	AL	35550	2/11/2013
015132	GOLDEN LIVING CENTER - OXFORD	P O BOX 3408, 1130 SOUTH HALE STREET	OXFORD	AL	36203	2/11/2013
015162	TALLADEGA HEALTHCARE CENTER, INC	616 CHAFFEE STREET	TALLADEGA	AL	35160	2/11/2013
015202	MCGUFFEY HEALTH & REHABILITATION CENTER	2301 RAINBOW DRIVE	GADSDEN	AL	35999	2/11/2013
015206	DECATUR HEALTH & REHAB CENTER	2326 MORGAN AVENUE SOUTHWEST	DECATUR	AL	35603	2/11/2013
015209	GOLDEN LIVING CENTER - MEADOWOOD	820 GOLF COURSE ROAD	BESSEMER	AL	35020	2/11/2013
015217	BIRMINGHAM NURSING AND REHABILITATION CENTER	1000 DUGAN AVENUE	BIRMINGHAM	AL	35214	2/11/2013
015221	CHAPMAN HEALTHCARE CENTER, INC	3701 DADEVILLE ROAD	ALEXANDER CITY	AL	35010	2/11/2013
015391	JACKSONVILLE HEALTH AND REHABILITATION, LLC	410 WILSON DRIVE SOUTHWEST	JACKSONVILLE	AL	36265	2/11/2013
015040	GOLDEN LIVING CENTER - MONTGOMERY	2020 NORTH COUNTRY CLUB DRIVE	MONTGOMERY	AL	36106	4/1/2013
015126	TRAYLOR RETIREMENT COMMUNITY	1235 YANCEY STREET P O BOX 467	ROANOKE	AL	36274	4/1/2013
015136	FALKVILLE HEALTH CARE CENTER	10 WEST THIRD STREET PO BOX 409	FALKVILLE	AL	35622	4/1/2013
015145	GOLDEN LIVING CENTER - RIVERCHASE	2500 RIVERHAVEN DRIVE	BIRMINGHAM	AL	35244	4/1/2013

(continued)

Participating ECCP facilities as of December 2015, continued

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
015160	SYLACAUGA HEALTH AND REHAB SERVICES	1007 W FORT WILLIAMS ST	SYLACAUGA	AL	35150	4/1/2013
015166	DADEVILLE HEALTHCARE CENTER	351 NORTH EAST STREET	DADEVILLE	AL	36853	4/1/2013
015383	WOODLAND VILLAGE REHABILITATION AND HEALTH CARE CENTER	1900 OLIVE STREET	CULLMAN	AL	35055	4/1/2013
015411	SHELBY RIDGE NURSING HOME	881 3RD STREET NORTHEAST	ALABASTER	AL	35007	4/1/2013
015437	FOLSOM CENTER FOR REHABILITATION AND HEALTHCARE[1]	401 ARNOLD STREET N.E.	CULLMAN	AL	35055	4/1/2013
015065	PRATTVILLE HEALTH AND REHABILITATION, LLC	601 JASMINE TRAIL	PRATTVILLE	AL	36066	4/15/2013
015159	GOLDEN LIVING CENTER - ONEONTA	215 VALLEY ROAD	ONEONTA	AL	35121	5/20/2013
015436	HILLVIEW TERRACE	100 PERRY HILL RD	MONTGOMERY	AL	36109	5/20/2013
155786	ALLISONVILLE MEADOWS	10312 ALLISONVILLE RD	FISHERS	IN	46038	2/4/2013
155292	AMERICAN VILLAGE	2026 E 54TH ST	INDIANAPOLIS	IN	46220	2/4/2013
155761	BROWNSBURG MEADOWS	2 E TILDEN	BROWNSBURG	IN	46112	2/4/2013
155636	HARRISON TERRACE	1924 WELLESLEY BLVD	INDIANAPOLIS	IN	46219	2/4/2013
155193	KINDRED TRANSITIONAL CARE AND REHAB-GREENWOOD	377 WESTRIDGE BLVD	GREENWOOD	IN	46142	2/4/2013
155226	NORTH CAPITOL NURSING & REHABILITATION CENTER	2010 N CAPITOL AVE	INDIANAPOLIS	IN	46202	2/4/2013
155041	NORTHWEST MANOR HEALTH CARE CENTER	6440 W 34TH ST	INDIANAPOLIS	IN	46224	2/4/2013
155106	RIVERWALK VILLAGE	295 WESTFIELD RD	NOBLESVILLE	IN	46060	2/4/2013
155327	UNIVERSITY HEIGHTS HEALTH AND LIVING COMMUNITY	1380 E COUNTY LINE RD S	INDIANAPOLIS	IN	46227	2/4/2013
155389	WESTPARK A WATERS COMMUNITY	1316 N TIBBS AVE	INDIANAPOLIS	IN	46222	2/4/2013
155241	FOREST CREEK VILLAGE	525 E THOMPSON RD	INDIANAPOLIS	IN	46227	4/8/2013

(continued)

Participating ECCP facilities as of December 2015, continued

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
155138	GOLDEN LIVING CENTER-INDIANAPOLIS	2860 CHURCHMAN AVE	INDIANAPOLIS	IN	46203	5/6/2013
155788	GREENWOOD MEADOWS	1200 N SR 135	GREENWOOD	IN	46142	4/8/2013
155001	HOOVERWOOD	7001 HOOVER RD	INDIANAPOLIS	IN	46260	4/8/2013
155334	KINDRED TRANSITIONAL CARE AND REHAB-WILDWOOD	7301 E 16TH ST	INDIANAPOLIS	IN	46219	4/8/2013
155557	MILLER'S MERRY MANOR	1651 N CAMPBELL ST	INDIANAPOLIS	IN	46218	4/8/2013
155271	MILLER'S SENIOR LIVING COMMUNITY	8400 CLEARVISTA PL	INDIANAPOLIS	IN	46256	4/8/2013
155329	ROSEWALK VILLAGE AT INDIANAPOLIS	1302 N LESLEY AVE	INDIANAPOLIS	IN	46219	4/8/2013
155792	COUNTRYSIDE MEADOWS	762 N DAN JONES RD	AVON	IN	46123	4/8/2013
265001	NHC HEALTHCARE, TOWN & COUNTRY	13995 CLAYTON ROAD	TOWN AND COUNTRY	MO	63017	2/18/2013
265105	DELMAR GARDENS WEST	13550 SOUTH OUTER 40 ROAD	TOWN AND COUNTRY	MO	63017	2/15/2013
265170	DELMAR GARDENS OF CHESTERFIELD	14855 NORTH OUTER 40 ROAD	CHESTERFIELD	MO	63017	2/15/2013
265202	CEDARCREST MANOR	324 WEST 5TH STREET	WASHINGTON	MO	63090	2/4/2013
265343	DELMAR GARDENS OF CREVE COEUR	850 COUNTRY MANOR LANE	CREVE COEUR	MO	63141	2/16/2013
265351	ALEXIAN BROS LANSDOWNE VILLAGE	4624 LANSDOWNE AVENUE	SAINT LOUIS	MO	63116	2/1/2013
265792	DELMAR GARDENS OF O'FALLON	7068 SOUTH OUTER 364	O FALLON	MO	63368	2/15/2013
265156	DELMAR GARDENS ON THE GREEN	15197 CLAYTON ROAD	CHESTERFIELD	MO	63017	5/28/2013
265158	NHC HEALTHCARE, DESLOGE	801 BRIM STREET, PO BOX AA	DESLOGE	MO	63601	4/19/2013
265216	SCENIC NURSING AND REHABILITATION CENTER, LLC	1333 SCENIC DRIVE	HERCULANEUM	MO	63048	8/1/2013

(continued)

Participating ECCP facilities as of December 2015, continued

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
265310	DELMAR GARDENS SOUTH	5300 BUTLER HILL ROAD	SAINT LOUIS	MO	63128	7/2/2013
265325	DELMAR GARDENS NORTH	4401 PARKER ROAD	FLORISSANT	MO	63033	4/17/2013
265401	FESTUS MANOR	627 WESTWOOD SOUTH DRIVE	FESTUS	MO	63028	4/15/2013
265417	ALEXIAN BROS SHERBROOKE VILLAGE	4005 RIPA AVENUE	SAINT LOUIS	MO	63125	4/15/2013
265711	DELMAR GARDENS OF MERAMEC VALLEY	#1 ARBOR TERRACE	FENTON	MO	63026	8/7/2013
265717	GRAND MANOR NURSING & REHABILITATION CENTER	3645 COOK AVE	SAINT LOUIS	MO	63113	4/18/2013
285098	GOOD SAMARITAN SOCIETY - MILLARD	12856 DEAUVILLE DRIVE	OMAHA	NE	68137	2/11/2013
285218	THE REHABILITATION CENTER OF OMAHA LLC	910 SOUTH 40TH STREET	OMAHA	NE	68105	2/12/2013
285238	SKYLINE NURSING AND REHABILITATION	7350 GRACELAND DRIVE	OMAHA	NE	68134	2/12/2013
285251	HUNTINGTON PARK CARE CENTER	1507 GOLD COAST ROAD	PAPILLION,	NE	68046	2/12/2013
285134	LIFE CARE CENTER OF ELKHORN	20275 HOPPER STREET	ELKHORN	NE	68022	3/22/2013
285137	LIFE CARE CENTER OF OMAHA	6032 VILLE DE SANTE DRIVE	OMAHA	NE	68104	3/22/2013
285149	MAPLE CREST CARE CENTER	2824 NORTH 66TH AVENUE	OMAHA	NE	68104	3/21/2013
285173	FLORENCE HOME	7915 NORTH 30TH STREET	OMAHA	NE	68112	3/21/2013
285058	NEBRASKA SKILLED NURSING & REHAB	7410 MERCY RD	OMAHA	NE	68124	4/22/2013
285097	GOLDEN LIVING CENTER - OMAHA	5505 GROVER STREET	OMAHA	NE	68106	5/13/2013
285104	GOLDEN LIVING CENTER - PLATTSMOUTH	602 SOUTH 18TH STREET	PLATTSMOUTH	NE	68048	5/13/2013

(continued)

Participating ECCP facilities as of December 2015, continued

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
285107	GOLDEN LIVING CENTER - SORENSEN	4809 REDMAN AVENUE	OMAHA	NE	68104	5/13/2013
285117	GOLDEN LIVING CENTER - VALHAVEN	300 WEST MEIGS STREET	VALLEY	NE	68064	6/4/2013
285210	CROWELL MEMORIAL HOME	245 SOUTH 22ND STREET	BLAIR	NE	68008	5/13/2013
295041	DELMAR GARDENS OF GREEN VALLEY	100 DELMAR GARDENS DRIVE	HENDERSON	NV	89014	2/19/2013
295017	HORIZON HEALTH AND REHABILITATION CENTER	660 DESERT LN	LAS VEGAS	NV	89106	2/19/2013
295052	LIFE CARE CENTER OF LAS VEGAS	6151 VEGAS DRIVE	LAS VEGAS	NV	89108	2/19/2013
295070	MARQUIS CARE PLAZA REGENCY	6021 W. CHEYENNE AVE.	LAS VEGAS	NV	89108	2/19/2013
295080	MOUNTAIN VIEW CARE CENTER	601 ADAMS BOULEVARD	BOULDER CITY	NV	89005	2/19/2013
295075	PAHRUMP HEALTH AND REHABILITATION CENTER	4501 NORTH BLAGG RD	PAHRUMP	NV	89048	2/19/2013
295066	SILVER HILLS HEALTH CARE CENTER	3450 N BUFFALO DR	LAS VEGAS	NV	89129	2/19/2013
295072	SILVER RIDGE HEALTHCARE CENTER	1151 TORREY PINES DR.	LAS VEGAS	NV	89146	2/19/2013
295071	TLC CARE CENTER	1500 W WARM SPRINGS RD	HENDERSON	NV	89014	2/19/2013
295078	HIGHLAND MANOR OF ELKO	2850 RUBY VISTA DRIVE	ELKO	NV	89801	3/18/2013
295050	LIFE CARE CENTER OF RENO	445 W. HOLCOMB LANE	RENO	NV	89511	3/18/2013
295043	MANOR CARE HEALTH SERVICES	3101 PLUMAS	RENO	NV	89509	4/15/2013
295088	MANOR CARE HEALTH SERVICES WINGFIELD HILLS	2350 WINGFIELD HILLS DR	SPARKS	NV	89436	4/15/2013
295020	ROSEWOOD REHABILITATION CENTER	2045 SILVERADA BLVD.	RENO	NV	89512	3/18/2013
295023	CARSON NURSING AND REHABILITATION CENTER	2898 HIGHWAY 50 EAST	CARSON CITY	NV	89701	6/7/2013

(continued)

Participating ECCP facilities as of December 2015, continued

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
295037	LAKE MEAD HEALTH AND REHABILITATION[2]	1180 E. LAKE MEAD DRIVE	HENDERSON	NV	89015	6/7/2013
295008	EL JEN CONVALESCENT HOSPITAL AND RETIREMENT CENTER	5538 W DUNCAN DR	LAS VEGAS	NV	89130	6/7/2013
295082	GARDNERVILLE HEALTH & REHAB CENTER	1573 MULLER PKWY	GARDNERVILLE	NV	89410	6/7/2013
295085	HIGHLAND MANOR OF FALLON	550 NORTH SHERMAN ROAD	FALLON	NV	89406	6/7/2013
295068	HIGHLAND MANOR OF MESQUITE	272 PIONEER BLVD	MESQUITE	NV	89027	6/7/2013
295089	MARQUIS CARE AT CENTENNIAL HILLS	6351 N FORT APACHE RD	LAS VEGAS	NV	89149	6/7/2013
295079	MOUNTAIN VIEW HEALTH & REHAB	201 KOONTZ LANE	CARSON CITY	NV	89701	6/7/2013
295067	ORMSBY POST ACUTE REHAB	3050 N ORMSBY	CARSON CITY	NV	89703	6/7/2013
295029	WHITE PINE CARE CENTER	1500 AVENUE G	ELY	NV	89301	6/7/2013
335835	ISLAND NURSING AND REHABILITATION CENTER INC	5537 EXPRESSWAY DRIVE NORTH	HOLTSVILLE	NY	11742	2/25/2013
335665	TERENCE CARDINAL COOKE H C C	1249 FIFTH AVENUE	NEW YORK	NY	10029	2/25/2013
335227	WORKMENS CIRCLE MULTICARE CENTER	3155 GRACE AVENUE	BRONX	NY	10469	2/25/2013
335436	TRUMP PAVILION FOR NURSING AND REAHBILITATION (JAMAICA HOSPITAL NURSING HOME)	89-40 135TH STREET	JAMAICA	NY	11418	2/25/2013
335555	COLD SPRING HILLS CENTER FOR NURSING & REHAB	378 SYOSSET WOODBURY ROAD	WOODBURY	NY	11797	2/25/2013
335724	SILVERCREST CENTER FOR NURSING AND REHABILITATION	144 45 87TH AVENUE	BRIARWOOD	NY	11435	3/1/2013
335636	GOOD SAMARITAN NURSING HOME	101 ELM ST	SAYVILLE	NY	11782	3/11/2013

(continued)

Participating ECCP facilities as of December 2015, continued

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
335015	SCHERVIER NURSING CARE CENTER	2975 INDEPENDENCE AVE	BRONX	NY	10463	3/12/2013
335696	GURWIN JEWISH NURSING AND REHABILITATION CENTER	68 HAUPPAUGE ROAD	COMMACK	NY	11725	5/1/2013
335250	HIGHFIELD GARDENS CARE CENTER OF GREAT NECK	199 COMMUNITY DRIVE	GREAT NECK	NY	11021	5/1/2013
335842	PECONIC LANDING AT SOUTHOLD INC	1500 BRECKNOCK ROAD	GREENPORT	NY	11944	5/1/2013
335254	RIVERHEAD CARE CENTER L L C	1146 WOODCREST AVENUE	RIVERHEAD	NY	11901	5/1/2013
335756	SMITHTOWN CENTER FOR REHAB & NURSING CARE	391 NORTH COUNTRY ROAD	SMITHTOWN	NY	11787	5/1/2013
335821	ST CATHERINE OF SIENA	52 ROUTE 25A	SMITHTOWN	NY	11787	5/1/2013
335301	ST JAMES REHABILITATION & HEALTHCARE CENTER	275 MORICHES ROAD	ST JAMES	NY	11780	5/1/2013
335758	LONG ISLAND STATE VETERANS HOME	100 PATRIOTS ROAD	STONY BROOK	NY	11790	5/1/2013
335861	THE AMSTERDAM AT HARBORSIDE	300 EAST OVERLOOK	PORT WASHINGTON	NY	11050	5/1/2013
335804	THE PAVILION AT QUEENS FOR REHABILITATION AND NURSING[3]	36 17 PARSONS BOULEVARD	FLUSHING	NY	11354	7/8/2013
335133	SAPPHIRE CTR FOR REHAB & NURSING OF CENTRAL QUEENS[4]	35 15 PARSONS BLVD	FLUSHING	NY	11354	7/8/2013
335826	BUENA VIDA CONTINUING CARE	48 CEDAR STREET	BROOKLYN	NY	11221	7/8/2013
335780	CASA PROMESA	308 EAST 175 STREET	BRONX	NY	10457	8/5/2013
335445	DAUGHTERS OF JACOB NURSING HOME CO, INC	1160 TELLER AVE	BRONX	NY	10456	8/5/2013
335491	THE NEW JEWISH HOME, MANHATTAN	120 WEST 106TH STREET	MANHATTAN	NY	10025	7/8/2013

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Participating ECCP facilities as of December 2015, continued

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
335629	PALISADE NURSING HOME COMPANY	5901 PALISADE AVENUE	BRONX	NY	10471	9/30/2013
335522	HARLEM CENTER FOR NURSING AND REHABILITATION, LLC[5]	30 WEST 138TH STREET	NEW YORK	NY	10037	8/5/2013
335762	ST MARYS CENTER INC	516 WEST 126TH STREET	NEW YORK	NY	10027	8/5/2013
335596	SUFFOLK CENTER FOR REHABILITATION AND NRSG	25 SCHOENFELD BLVD	PATCHOGUE	NY	11772	9/30/2013
335020	THE HEBREW HOME FOR THE AGED AT RIVERDALE	5901 PALISADE AVENUE	RIVERDALE	NY	10471	9/30/2013
335505	HIGHLAND CARE CENTER	91-31 175TH STREET	JAMAICA	NY	11432	9/30/2013
395758	EVERGREEN HEALTH AND REHABILITATION CENTER	191 EVERGREEN MILL ROAD	HARMONY	PA	16037	2/11/2013
395015	BRIGHTON REHABILITATION AND WELLNESS CENTER[6]	246 FRIENDSHIP CIRCLE	BEAVER	PA	15009	2/15/2013
395028	SQUIRREL HILL CTR FOR REHABILITATION AND HEALING	2025 WIGHTMAN STREET	PITTSBURGH	PA	15217	2/13/2013
395401	BALL PAVILION, THE	5416 EAST LAKE ROAD	ERIE	PA	16511	2/11/2013
395502	OAKWOOD HEIGHTS (FORMERLY OIL CITY PRESBYTERIAN HOME)	10 VO TECH DRIVE	OIL CITY	PA	16301	3/18/2013
395489	CORRY MANOR	640 WORTH STREET	CORRY	PA	16407	3/19/2013
395788	SUNNYVIEW NURSING AND REHABILITATION CENTER	107 SUNNYVIEW CIRCLE	BUTLER	PA	16001	4/25/2013
395816	LUTHERAN HOME AT KANE, THE	100 HIGH POINT DRIVE	KANE	PA	16735	4/15/2013
395410	SUGAR CREEK REST	120 LAKESIDE DRIVE	WORTHINGTON	PA	16262	4/15/2013
395699	SWEDEN VALLEY MANOR	1028 EAST SECOND STREET	COUDERSPORT	PA	16915	4/15/2013
395593	TRINITY LIVING CENTER	400 HILLCREST AVENUE	GROVE CITY	PA	16127	7/15/2013
395536	EDISON MANOR NURSING & REHABILITATION CENTER	222 WEST EDISON AVENUE	NEW CASTLE	PA	16101	8/1/2013

(continued)

Participating ECCP facilities as of December 2015, continued

PROVNUM	PROVNAME	Address	City	State	ZIP	Start Date
395607	GOLDEN LIVINGCENTER-SHIPPENVILLE	21158 PAINT BOULEVARD	SHIPPENVILLE	PA	16254	6/10/2013
395500	MOUNTAINVIEW SPECIALTY CARE CENTER	227 SAND HILL ROAD	GREENSBURG	PA	15601	6/19/2013
395640	KANE- MCKEESPORT	100 NINTH STREET	MCKEESPORT	PA	15132	8/1/2013
395435	WESTMORELAND MANOR	2480 SOUTH GRANDE BOULEVARD	GREENSBURG	PA	15601	8/1/2013
395606	KANE- ROSS	110 MCINTYRE ROAD	PITTSBURGH	PA	15237	8/1/2013
395643	KANE- GLEN HAZEL	955 RIVERMONT DRIVE	PITTSBURGH	PA	15207	9/9/2013

NOTES:

Name changed from [1]Cullman Long Term Care and Rehabilitation Center, [2] Clearview Health and Rehabilitation, [3]Dr. William O Benenson Rehab Pavilion, [4]Flushing Manor Nursing Home, [5]Greater Harlem Nursing Home Co, [6]Friendship Ridge

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APPENDIX B
DESCRIPTIVE STATISTICS OF RESIDENT- AND FACILITY-LEVEL VARIABLES USED AS REGRESSION COVARIATES

Appendix Tables B-1 through ***B-7*** show the percentage of binary variables and mean values (and standard deviation) of continuous variables used as independent variables, by year and by ECCP/comparison status in all regression models used in developing this annual report. The tables indicate which variables are measured at the resident level and which are measured at the facility level. Each table presents descriptions from a different state in the Initiative.

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Table B.1
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Alabama

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Resident Level:										
Exposure (Initiative-related days)[1]	247.5	233.1	240.8	250.3	247.7	237.4	236.4	236.7	238.9	229.6
	(136.8)	(142.7)	(137.8)	(135.8)	(136.9)	(140.2)	(141.1)	(140.6)	(141.1)	(142.6)
Eligible due to no discharge plan	17.3	21.5	17.3	16.4	15.4	20.2	20.8	20.5	20.7	21.4
Dual eligible (any episode month)	75.7	74.1	76.7	76.3	78.2	73.9	74.4	75.5	75.4	75.1
MA plan (any episode month)	1.9	2.9	3.7	3.8	3.5	1.7	2.0	3.0	3.0	4.3
Male, < 65	5.2	5.8	5.9	6.4	6.5	5.2	5.8	5.9	6.4	6.3
Male, 65–69	3.7	3.5	3.8	4.1	4.3	3.6	3.6	4.1	4.2	4.5
Male, 70–74	3.5	4.1	4.2	4.0	4.1	4.3	4.1	4.4	4.5	4.8
Male, 75–79	4.9	4.8	4.8	4.4	4.5	4.7	4.9	5.0	4.9	5.0
Male, 80–84	4.7	5.1	4.7	4.9	5.0	5.4	5.3	5.0	4.6	4.6
Male, 85–89	3.5	3.2	3.8	3.6	3.4	4.1	3.8	3.9	3.7	3.6
Male, 90–94	1.8	2.2	1.7	1.4	1.3	2.3	2.1	1.8	1.8	2.1
Male, 95+	0.5	0.4	0.3	0.5	0.5	0.9	0.9	0.9	0.7	0.6
Female, < 65	5.3	5.6	5.7	5.7	6.2	4.9	5.2	5.4	5.3	5.4
Female, 65–69	4.3	4.0	4.9	5.2	4.8	4.2	5.1	4.9	5.5	5.3
Female, 70–74	6.7	6.4	6.4	6.6	6.3	5.7	5.7	5.7	6.4	7.0
Female, 75–79	9.9	10.3	10.1	10.0	9.8	9.0	9.1	8.9	9.0	8.2
Female, 80–84	14.7	13.3	12.4	13.0	13.5	13.6	13.4	13.3	12.5	12.4
Female, 85–89	16.2	15.7	16.4	15.5	14.4	16.4	15.4	15.4	14.8	14.3
Female, 90–94	10.9	10.9	10.2	10.3	10.4	10.7	11.1	10.8	11.3	11.3
Female, 95+	4.4	4.8	4.8	4.4	4.9	5.0	4.6	4.8	4.6	4.6

(continued)

Table B.1 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Alabama

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
White, non-Hispanic	78.1	77.1	76.4	77.2	76.5	78.3	77.9	76.1	75.4	75.2
Black, non-Hispanic	20.9	21.7	22.1	21.4	21.9	20.6	21.1	22.6	23.0	23.8
Other race/ethnicity	1.0	1.3	1.4	1.4	1.6	1.1	1.0	1.3	1.5	1.0
Dementia	52.3	50.6	52.3	54.0	56.0	52.9	53.5	54.7	53.5	53.3
Anemia	23.9	26.7	28.3	30.2	31.0	27.4	28.3	29.8	30.3	30.2
BMI	26.7	26.8	26.6	26.7	26.8	26.4	26.5	26.6	26.8	26.7
	(7.3)	(7.4)	(7.3)	(7.5)	(7.6)	(7.4)	(7.3)	(7.3)	(7.7)	(7.8)
ADL Score	17.0	17.2	17.3	17.1	17.1	17.8	17.9	17.9	17.6	17.5
	(7.4)	(7.2)	(7.2)	(7.1)	(7.2)	(7.7)	(7.3)	(7.0)	(6.9)	(6.7)
Any hospice use in 2 months before episode period	6.2	6.7	7.2	7.4	7.9	6.6	6.7	7.1	6.3	7.0
HIV/AIDS	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.1	0.2
Septicemia/shock	6.6	5.8	7.0	7.9	6.9	5.8	5.5	6.1	6.3	6.3
Cancers	7.9	8.7	8.5	7.5	8.1	8.9	8.9	8.7	7.8	7.5
Diabetes with complications	14.8	16.1	16.0	14.8	17.0	14.6	14.9	15.8	17.2	18.2
Diabetes without complications	23.0	24.7	24.2	24.5	21.8	21.7	22.4	22.1	21.7	20.3
Liver problems	1.0	1.2	1.7	1.8	1.5	1.4	1.4	1.5	1.8	1.7
Intestinal obstruction/perforation	3.8	3.9	4.2	4.3	3.4	3.6	3.7	3.6	3.7	3.6
Pancreatic disease	1.8	1.5	1.5	1.6	1.3	1.4	1.4	1.8	1.5	1.4
Inflammatory bowel disease	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.5	0.7
Bone/joint/muscle infections/necrosis	1.5	1.8	1.8	2.3	2.1	1.5	1.5	2.0	1.9	2.0

(continued)

Table B.1 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Alabama

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Rheumatoid arthritis and inflammatory connective tissue disease	4.5	5.5	4.3	4.8	5.1	4.8	5.2	4.8	5.4	5.6
Severe hematological disorders	1.3	1.3	0.6	0.9	0.8	1.5	1.3	0.7	0.5	0.6
Disorders of immunity	0.4	0.9	1.2	1.4	1.5	0.5	0.8	1.3	1.2	1.3
Schizophrenia	3.8	4.3	5.2	4.5	4.7	4.2	4.4	5.0	4.9	4.9
Major depressive, bipolar, and paranoid disorders	6.5	7.3	6.6	9.5	9.8	8.7	8.8	9.2	9.5	10.8
Paraplegia, quadriplegia, other extensive paralysis, cerebral palsy, and other paralytic syndromes	2.2	2.7	3.0	3.1	3.0	2.8	2.7	3.0	3.3	3.2
Spinal cord disorders/injuries	1.2	0.8	1.1	1.2	1.3	1.1	0.9	1.2	1.2	1.1
Multiple sclerosis	0.7	0.8	1.0	0.9	0.8	0.7	0.6	0.8	0.9	0.9
Seizure disorders and convulsions	10.5	11.3	11.6	11.6	12.2	10.5	11.1	11.0	11.4	11.4
Coma, brain compression/anoxic damage	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.8	0.8	1.1
Respirator dependence/tracheostomy status	0.5	0.4	0.4	0.7	0.6	0.4	0.4	0.6	0.5	0.6
Cardio-respiratory failure and shock	9.5	10.2	11.1	10.2	11.4	9.4	10.1	10.5	10.4	10.5
Congestive heart failure	32.0	30.1	30.2	29.5	29.8	30.5	29.0	29.0	29.3	29.8
Acute myocardial infarction	3.1	3.1	2.8	2.7	2.7	2.3	2.3	2.4	2.4	2.3
Unstable angina and other acute ischemic heart disease	2.4	2.1	2.3	2.3	2.6	2.4	2.0	2.6	1.9	2.2

(continued)

Table B.1 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Alabama

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Angina pectoris/old myocardial infarction	4.8	5.0	5.9	5.7	5.2	4.8	5.2	5.1	5.3	5.7
Specified heart arrhythmias	21.7	21.6	21.5	21.1	22.1	23.1	22.5	23.5	22.3	23.2
Ischemic or unspecified stroke	13.0	12.5	13.0	12.4	12.6	13.8	13.0	13.3	12.7	13.3
Vascular disease with complications	33.7	30.4	30.1	32.1	35.3	29.6	28.6	30.5	28.2	29.1
COPD	26.8	26.7	25.7	26.4	26.1	24.9	26.0	25.0	24.9	25.6
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, Empyema, and Lung Abscess	4.5	4.9	4.8	4.3	3.7	5.0	4.3	4.9	4.5	4.5
Proliferative diabetic retinopathy and vitreous hemorrhage	0.8	0.8	1.0	1.0	0.8	0.6	0.8	0.6	1.0	0.9
Dialysis status	1.9	2.0	2.3	2.3	2.2	1.6	1.8	1.6	1.6	1.8
Renal failure	19.7	20.8	23.2	23.1	25.1	19.7	20.6	22.6	24.5	26.7
Decubitus ulcer of skin	6.9	8.2	8.7	9.4	8.1	7.3	8.0	9.3	8.4	7.7
Chronic ulcer of skin, except decubitus	4.3	4.3	4.6	4.5	4.5	3.8	3.7	3.7	4.1	3.6
Vertebral fractures without spinal cord injury	2.2	2.2	2.7	2.0	2.2	2.6	2.3	2.2	2.3	2.2
Hip fracture/dislocation	6.9	5.5	5.9	5.3	5.8	5.5	5.6	5.1	5.5	5.0
Major complications of medical care and trauma	6.1	5.1	5.5	4.9	5.8	5.8	5.1	5.4	5.2	5.3
Artificial openings for feeding or elimination	3.8	4.2	4.8	4.7	4.4	3.8	4.2	4.4	4.5	5.0
N (Residents)	3,500	3,579	3,332	3,288	3,282	7,130	7,168	7,059	7,038	6,979

(continued)

Appendix Table B.1 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Alabama

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Facility Level:										
Any PA/NP in facility	43.5	47.8	47.8	47.8	60.9	34.8	41.3	43.5	45.7	56.5
RN staffing HPRD	0.36	0.36	0.40	0.41	0.42	0.32	0.35	0.35	0.40	0.39
	(0.15)	(0.16)	(0.19)	(0.17)	(0.20)	(0.14)	(0.15)	(0.16)	(0.16)	(0.14)
LPN staffing HPRD	1.02	1.00	1.00	0.99	0.92	1.01	1.03	1.03	0.98	1.07
	(0.36)	(0.38)	(0.32)	(0.32)	(0.33)	(0.22)	(0.36)	(0.37)	(0.22)	(0.44)
CNA staffing HPRD	2.70	2.57	2.23	2.58	2.55	2.52	2.49	2.45	2.50	2.56
	(0.68)	(0.78)	(1.17)	(0.73)	(0.60)	(0.44)	(0.49)	(0.66)	(0.55)	(0.42)
For profit	95.7	95.7	95.7	95.7	95.7	87.0	87.0	87.0	87.0	87.0
Chain	73.9	78.3	73.9	73.9	78.3	65.2	63.0	63.0	65.2	69.6
Percent Medicaid residents	65.0	68.0	68.8	69.1	66.8	67.7	67.0	66.2	68.5	68.4
	(15.9)	(10.6)	(11.3)	(9.5)	(9.6)	(10.2)	(13.6)	(14.2)	(14.5)	(12.4)
Percent Medicare residents	16.9	13.8	12.6	11.8	13.2	14.4	15.1	14.9	12.2	14.6
	(15.1)	(5.3)	(4.8)	(5.0)	(5.7)	(5.2)	(10.6)	(10.5)	(6.2)	(7.6)
Percent residents with advance directives	33.4	29.1	31.9	36.2	34.7	34.0	28.1	35.2	31.1	30.2
	(19.4)	(18.7)	(18.5)	(24.5)	(24.6)	(21.6)	(18.0)	(26.2)	(25.7)	(26.7)
Alzheimer's unit in facility	21.7	26.1	30.4	34.8	34.8	37.0	32.6	32.6	30.4	34.8
N (Facilities)	23	23	23	23	23	46	46	46	46	46

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

ECCP = Enhanced Care and Coordination Providers; MA = Medicare Advantage; BMI = Body Mass Index; ADL = Activities of Daily Living; PA = Physician Assistant; NP = Nursing Practitioner; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide; HPRD = Hours Per Resident Day.

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included.

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av08/nhpah252).

Table B.2
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Indiana

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Resident Level:										
Exposure (Initiative-related days)[1]	206.2	210.9	204.2	216.4	214.5	227.9	225.0	224.0	225.6	223.2
	(137.8)	(138.6)	(140.1)	(138.5)	(137.2)	(138.7)	(140.3)	(140.0)	(138.0)	(139.0)
Eligible due to no discharge plan	23.9	22.6	24.4	23.2	20.4	20.9	21.2	19.7	19.5	20.4
Dual eligible (any episode month)	70.7	71.8	69.9	74.6	76.7	68.0	68.7	69.1	71.4	72.8
MA plan (any episode month)	1.4	2.9	3.1	3.8	4.6	2.4	2.7	3.1	3.0	4.0
Male, < 65	4.7	4.6	5.3	5.4	6.6	3.2	3.4	3.6	4.1	4.6
Male, 65–69	3.1	3.8	3.2	3.2	3.7	2.2	2.2	2.7	2.5	3.2
Male, 70–74	3.7	3.8	4.5	4.5	4.6	3.3	3.0	2.8	3.0	3.4
Male, 75–79	5.5	5.3	5.4	5.1	5.8	3.9	3.9	4.0	4.2	3.9
Male, 80–84	6.2	5.9	6.0	5.6	6.4	5.4	5.3	5.4	5.0	4.8
Male, 85–89	5.6	4.8	5.3	5.2	4.7	5.7	5.7	5.3	5.6	5.2
Male, 90–94	2.3	3.0	3.1	2.7	3.0	2.9	3.3	3.3	3.2	3.6
Male, 95+	0.8	0.7	0.8	0.9	0.9	0.9	1.1	0.9	1.1	1.1
Female, < 65	3.5	4.0	4.4	5.1	5.2	3.7	4.1	4.6	4.5	4.5
Female, 65–69	3.8	4.5	4.0	4.2	4.3	3.0	2.9	3.4	3.5	4.1
Female, 70–74	5.6	5.4	5.9	6.3	5.9	4.6	4.4	4.5	5.3	5.6
Female, 75–79	9.4	9.4	9.0	8.7	8.3	8.3	8.0	7.6	7.8	8.0
Female, 80–84	13.8	13.0	11.8	12.4	11.1	13.9	14.3	13.8	13.2	11.8
Female, 85–89	15.5	14.5	14.4	13.9	13.0	18.5	17.4	17.1	16.3	16.2
Female, 90–94	11.2	12.2	11.8	11.0	10.6	14.3	14.7	14.4	14.2	13.2
Female, 95+	5.4	5.1	5.3	5.9	5.8	6.3	6.2	6.5	6.5	6.6

(continued)

Table B.2 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Indiana

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
White, non-Hispanic	75.9	76.7	77.7	74.6	73.6	84.3	84.0	84.5	83.2	82.3
Black, non-Hispanic	21.6	20.3	20.1	21.7	22.2	12.1	12.1	11.5	11.9	12.6
Other race/ethnicity	2.5	3.0	2.3	3.7	4.2	3.6	3.9	4.1	4.8	5.0
Dementia	56.1	54.4	53.8	55.0	55.8	52.3	53.0	53.6	53.3	53.0
Anemia	29.5	32.1	34.2	38.4	39.9	25.3	26.7	27.7	29.1	30.3
BMI	26.5	27.0	27.0	27.2	27.3	26.7	26.8	26.9	27.0	27.1
	(7.6)	(8.0)	(8.0)	(8.4)	(8.1)	(7.4)	(7.6)	(7.4)	(7.5)	(7.6)
ADL Score	17.8	18.3	18.6	18.7	19.0	17.4	17.9	18.1	18.3	18.3
	(5.9)	(5.0)	(4.5)	(4.2)	(4.1)	(6.0)	(5.6)	(5.1)	(5.0)	(4.7)
Any hospice use in 2 months before episode period	5.1	4.2	3.9	4.1	4.5	4.5	4.9	5.5	5.1	5.8
HIV/AIDS	0.3	0.2	0.2	0.3	0.3	0.1	0.1	0.2	0.1	0.2
Septicemia/shock	6.0	7.6	7.7	7.8	8.9	5.7	7.0	6.6	6.6	7.6
Cancers	9.5	9.7	9.9	9.8	9.5	9.7	9.8	10.0	9.5	10.1
Diabetes with complications	22.5	21.2	20.5	19.6	18.6	20.2	20.1	20.0	18.9	15.9
Diabetes without complications	15.1	16.5	15.3	17.7	18.1	15.4	15.5	16.8	18.5	21.2
Liver problems	1.8	1.5	1.4	1.6	2.0	1.2	1.1	1.3	1.2	1.6
Intestinal obstruction/perforation	3.5	2.9	3.2	3.6	3.3	3.2	3.5	3.2	3.3	3.3
Pancreatic disease	1.7	2.0	1.9	1.8	1.8	1.7	2.0	1.8	2.1	1.9
Inflammatory bowel disease	0.7	0.5	0.6	0.7	0.4	0.6	0.7	0.8	1.1	0.9
Bone/joint/muscle infections/necrosis	2.5	2.7	2.8	3.3	3.3	1.9	2.2	2.5	2.4	2.2
Rheumatoid arthritis and inflammatory connective tissue disease	3.6	4.7	4.9	5.1	4.3	4.4	4.8	5.0	4.9	5.1

(continued)

Table B.2 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Indiana

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Severe hematological disorders	1.6	1.9	0.9	0.8	0.8	1.6	1.5	0.9	1.1	0.7
Disorders of immunity	0.6	1.1	2.0	1.7	1.6	0.6	1.2	2.1	1.6	1.5
Schizophrenia	3.4	3.4	4.1	4.6	4.9	2.6	3.0	3.1	3.5	3.6
Major depressive, bipolar, and paranoid disorders	10.8	11.7	12.2	14.5	17.5	11.1	10.7	12.4	13.4	13.2
Paraplegia, quadriplegia, other extensive paralysis, cerebral palsy, and other paralytic syndromes	2.1	2.2	2.8	2.6	2.4	1.8	2.4	2.6	2.9	3.0
Spinal cord disorders/injuries	1.3	1.1	1.1	1.1	1.1	1.2	0.9	1.0	0.9	1.2
Multiple sclerosis	1.2	1.1	1.0	1.2	1.1	1.1	1.2	1.0	1.2	1.4
Seizure disorders and convulsions	10.1	9.9	10.1	10.0	10.8	7.8	7.9	8.3	8.5	8.2
Coma, brain compression/anoxic damage	1.1	0.6	0.7	1.0	1.0	0.5	0.9	0.8	0.9	1.0
Respirator dependence/tracheostomy status	0.8	1.0	1.2	1.2	1.1	0.5	0.9	0.6	0.5	0.6
Cardio-respiratory failure and shock	11.5	12.7	13.2	14.4	14.1	9.8	11.3	10.9	11.7	13.1
Congestive heart failure	30.4	30.1	29.8	31.0	30.5	30.5	30.6	31.4	31.5	30.9
Acute myocardial infarction	3.2	2.6	2.8	3.1	2.5	2.0	2.1	2.1	2.2	2.7
Unstable angina and other acute ischemic heart disease	3.4	2.7	2.5	2.8	2.6	2.2	2.4	2.5	2.7	2.4
Angina pectoris/old myocardial infarction	5.3	6.2	6.2	7.3	6.5	5.9	6.6	7.3	6.7	6.9
Specified heart arrhythmias	24.0	23.4	24.0	24.4	23.6	23.2	24.0	24.4	25.5	25.6

(continued)

Table B.2 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Indiana

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Ischemic or unspecified stroke	12.6	13.4	12.3	11.7	12.2	12.0	12.8	12.6	13.1	13.1
Vascular disease with complications	45.9	44.5	45.2	45.5	43.3	47.4	50.2	49.2	47.0	45.3
COPD	24.5	26.0	25.2	26.8	24.6	22.5	22.8	22.4	23.8	24.4
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, Empyema, and Lung Abscess	4.7	4.7	6.1	4.2	4.3	4.5	4.6	4.1	4.2	4.0
Proliferative diabetic retinopathy and vitreous hemorrhage	1.0	1.0	1.0	0.9	1.0	0.8	0.8	0.9	1.0	1.1
Dialysis status	2.0	2.2	2.7	2.7	3.4	1.4	1.8	2.1	2.1	2.1
Renal failure	24.4	25.6	26.0	28.5	28.2	21.7	23.2	24.0	26.5	28.2
Decubitus ulcer of skin	11.3	14.0	12.4	10.9	12.3	7.9	9.6	9.1	9.6	9.0
Chronic ulcer of skin, except decubitus	5.4	4.6	4.0	3.9	3.9	3.9	4.4	4.0	3.9	3.7
Vertebral fractures without spinal cord injury	2.8	2.9	2.7	2.6	2.4	3.0	2.7	2.8	3.3	3.0
Hip fracture/dislocation	4.8	5.2	5.2	4.4	4.9	5.4	6.0	5.7	5.5	5.2
Major complications of medical care and trauma	5.1	6.5	6.0	6.3	6.8	5.6	6.5	6.1	5.9	6.5
Artificial openings for feeding or elimination	2.6	3.4	3.2	4.2	3.5	2.9	3.7	3.5	3.4	3.6
N (Residents)	2,810	2,970	3,064	2,949	2,809	5,718	5,656	5,430	5,335	5,196

(continued)

Appendix Table B.2 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Indiana

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Facility Level:										
Any PA/NP in facility	57.9	68.4	68.4	89.5	100.0	47.4	47.4	55.3	57.9	73.7
RN staffing HPRD	3.52 [a]	0.46	0.41	0.51	0.55	0.99	0.41	0.41	0.48	0.43
	(7.40)	(0.19)	(0.19)	(0.18)	(0.24)	(3.84)	(0.28)	(0.24)	(0.26)	(0.22)
LPN staffing HPRD	4.62 [a]	1.03	1.08	0.96	0.89	1.55	1.00	0.99	1.00	0.95
	(8.63)	(0.24)	(0.29)	(0.24)	(0.23)	(3.75)	(0.51)	(0.25)	(0.27)	(0.24)
CNA staffing HPRD	5.44 [a]	2.01	2.30	2.29	2.20	2.61	1.97	2.10	2.27	2.21
	(8.27)	(0.42)	(0.54)	(0.38)	(0.61)	(3.58)	(0.48)	(0.51)	(0.52)	(0.41)
For profit	36.8	31.6	31.6	15.8	10.5	44.7	36.8	23.7	36.8	31.6
Chain	89.5	89.5	100.0	100.0	100.0	55.3	71.1	71.1	81.6	86.8
Percent Medicaid residents	60.4	60.7	64.2	66.2	67.5	60.0	58.3	61.1	62.1	62.3
	(19.0)	(10.1)	(11.4)	(9.8)	(8.4)	(17.1)	(18.4)	(16.3)	(16.2)	(14.9)
Percent Medicare residents	17.8	19.1	18.8	17.1	14.8	16.6	19.1	17.3	15.8	14.3
	(11.3)	(7.6)	(10.8)	(5.3)	(5.0)	(9.1)	(11.8)	(11.5)	(9.3)	(7.6)
Percent residents with advance directives	56.8	29.0	19.6	35.4	23.4	57.7	31.3	53.3	51.5	53.8
	(43.4)	(37.4)	(30.0)	(35.0)	(30.6)	(39.0)	(34.2)	(36.3)	(38.0)	(39.6)
Alzheimer's unit in facility	63.2	63.2	63.2	68.4	68.4	63.2	65.8	68.4	60.5	65.8
N (Facilities)	19	19	19	19	19	38	38	38	38	38

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

ECCP = Enhanced Care and Coordination Providers; MA = Medicare Advantage; BMI = Body Mass Index; ADL = Activities of Daily Living; PA = Physician Assistant; NP = Nursing Practitioner; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide; HPRD = Hours Per Resident Day.

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included.

[a] The average HPRD is improbably high, driven by three outlier facilities in 2011. The three facilities are owned by the same organization. All of them reported having two residents in 2011 but their resident census jumped to over 100 in 2012 and 2013. Thus, in 2011 their high staffing HPRD resulted from having an extremely small number of residents in the denominator. Available information shows that all three facilities are new, which opened in 2011. They possibly first filled in with full staffing and later with residents.

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av08/nhpah252).

Table B.3
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Missouri

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Resident Level:										
Exposure (Initiative-related days)[1]	218.4	221.8	228.9	236.1	232.7	219.5	228.6	227.3	226.0	219.0
	(145.4)	(144.8)	(140.6)	(139.5)	(139.4)	(143.6)	(141.4)	(142.3)	(141.7)	(142.7)
Eligible due to no discharge plan	28.4	25.6	22.2	20.8	20.5	26.1	22.2	21.1	23.0	24.2
Dual eligible (any episode month)	63.6	68.2	68.9	73.1	73.3	60.1	64.0	65.8	65.9	66.8
MA plan (any episode month)	4.2	4.1	4.5	3.9	4.9	2.8	2.9	2.9	3.4	3.1
Male, < 65	5.5	6.7	6.2	6.5	6.9	5.6	6.3	7.1	7.4	7.7
Male, 65–69	3.0	2.8	2.8	3.0	3.1	2.8	2.9	3.4	3.9	4.2
Male, 70–74	4.3	4.1	3.8	3.7	3.7	3.2	3.5	3.9	3.6	3.8
Male, 75–79	3.9	3.8	4.4	4.0	4.1	4.3	4.4	4.0	4.1	4.5
Male, 80–84	5.7	5.3	4.5	4.0	4.9	5.0	5.2	4.5	4.5	4.5
Male, 85–89	5.6	5.8	5.4	5.3	4.7	5.3	5.1	4.9	4.4	4.0
Male, 90–94	3.0	3.4	3.3	3.3	3.5	2.9	3.0	3.3	2.8	2.9
Male, 95+	0.6	0.9	1.1	1.3	0.9	0.9	0.7	0.8	0.7	0.9
Female, < 65	5.8	6.2	6.7	6.3	6.1	5.8	6.2	6.9	6.6	6.6
Female, 65–69	3.5	2.6	3.1	3.8	4.4	3.5	3.2	3.0	3.5	3.6
Female, 70–74	4.7	4.4	4.7	5.2	5.4	4.2	4.8	4.7	5.5	5.1
Female, 75–79	9.2	8.3	7.5	7.0	7.7	8.6	8.2	7.3	7.9	8.4
Female, 80–84	12.5	13.0	12.8	12.4	12.2	12.3	12.1	12.7	12.0	12.0
Female, 85–89	15.9	15.2	14.6	15.2	14.4	17.4	15.9	14.5	15.5	13.8
Female, 90–94	11.4	11.6	12.7	13.1	12.6	12.3	13.1	13.7	12.4	12.5
Female, 95+	5.6	5.9	6.6	5.8	5.7	5.9	5.5	5.4	5.5	5.4

(continued)

Table B.3 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Missouri

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
White, non-Hispanic	83.8	87.3	87.4	87.0	85.2	86.0	86.2	85.4	84.6	84.2
Black, non-Hispanic	13.6	11.5	11.3	11.4	13.4	12.4	12.6	13.2	13.7	13.8
Other race/ethnicity	2.7	1.2	1.3	1.6	1.4	1.6	1.1	1.4	1.6	2.0
Dementia	46.3	50.0	48.2	48.6	47.4	49.7	52.2	50.1	48.1	46.0
Anemia	20.3	22.5	24.8	25.8	24.9	24.8	26.1	24.4	22.5	23.9
BMI	26.8	27.1	27.2	27.2	27.4	27.1	27.1	27.3	27.6	27.5
	(7.4)	(8.2)	(8.6)	(8.4)	(8.2)	(7.5)	(7.8)	(8.0)	(8.0)	(7.9)
ADL Score	15.7	15.6	15.2	15.2	15.0	14.4	14.5	14.4	14.5	14.6
	(7.3)	(7.2)	(7.4)	(7.4)	(7.3)	(7.6)	(7.5)	(7.7)	(7.6)	(7.5)
Any hospice use in 2 months before episode period	5.6	6.3	6.3	6.8	7.8	8.6	9.3	9.0	8.7	8.5
HIV/AIDS	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.3
Septicemia/shock	7.6	7.4	7.8	8.2	9.1	5.7	6.4	5.9	7.1	8.2
Cancers	12.2	11.6	12.0	10.5	11.3	9.6	9.8	9.2	9.4	9.5
Diabetes with complications	18.9	20.0	20.4	19.4	21.6	15.5	15.4	15.8	16.7	17.3
Diabetes without complications	17.0	17.5	16.0	16.5	14.5	18.1	18.1	18.6	18.1	18.1
Liver problems	1.0	1.4	1.2	1.9	1.4	1.1	1.2	1.9	2.0	2.2
Intestinal obstruction/perforation	3.7	4.2	3.5	3.4	3.9	3.2	4.1	3.7	3.4	3.0
Pancreatic disease	1.3	1.4	1.7	2.0	1.8	1.9	1.4	1.8	1.8	1.5
Inflammatory bowel disease	1.2	1.0	0.7	1.0	0.6	0.8	0.7	0.7	0.7	0.4
Bone/joint/muscle infections/necrosis	2.8	3.3	2.7	2.0	2.4	2.1	2.2	2.5	2.5	2.7
Rheumatoid arthritis and inflammatory connective tissue disease	5.4	4.8	5.4	4.9	5.9	5.1	4.9	4.5	4.2	4.6

(continued)

Table B.3 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Missouri

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Severe hematological disorders	1.7	1.6	1.1	0.7	0.5	1.3	1.2	0.8	0.7	0.7
Disorders of immunity	1.2	1.2	1.7	1.7	1.6	0.8	1.1	2.0	1.7	1.6
Schizophrenia	4.7	4.6	4.9	5.5	5.7	5.9	6.4	7.0	7.5	7.3
Major depressive, bipolar, and paranoid disorders	18.6	21.1	21.7	21.5	24.0	12.0	14.3	15.6	15.5	15.9
Paraplegia, quadriplegia, other extensive paralysis, cerebral palsy, and other paralytic syndromes	2.6	3.3	3.4	4.3	4.6	1.9	2.2	2.2	2.4	2.2
Spinal cord disorders/injuries	1.5	1.4	1.2	1.0	1.0	0.8	1.0	0.8	0.9	1.1
Multiple sclerosis	1.9	2.5	2.2	2.7	2.8	1.1	0.9	1.2	1.1	1.2
Seizure disorders and convulsions	8.0	9.9	10.2	11.4	11.6	8.1	10.1	10.5	10.9	10.4
Coma, brain compression/anoxic damage	0.8	1.4	1.2	0.9	1.4	0.6	0.6	1.0	0.9	0.9
Respirator dependence/tracheostomy status	0.8	0.7	0.9	0.9	0.6	0.4	0.6	0.7	0.8	1.1
Cardio-respiratory failure and shock	11.7	12.6	13.1	10.9	13.6	10.0	10.5	11.5	11.3	12.8
Congestive heart failure	34.0	35.8	35.3	34.1	35.7	27.0	26.9	27.4	26.2	26.5
Acute myocardial infarction	3.7	3.3	2.8	2.6	2.7	2.0	1.8	2.0	2.5	2.3
Unstable angina and other acute ischemic heart disease	4.2	3.7	2.8	3.1	3.1	1.9	1.7	2.0	1.5	1.9
Angina pectoris/old myocardial infarction	6.8	6.3	6.8	5.7	5.2	5.3	6.1	6.1	6.6	5.4
Specified heart arrhythmias	27.0	28.3	28.7	26.2	28.7	22.2	22.7	23.8	23.3	24.1

(continued)

Table B.3 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Missouri

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Ischemic or unspecified stroke	12.6	12.9	11.5	11.7	11.2	11.8	11.9	10.9	10.5	9.1
Vascular disease with complications	39.6	40.8	41.4	42.3	42.4	38.9	38.3	46.4	46.0	49.5
COPD	23.4	23.9	23.3	23.1	24.5	23.5	26.1	26.5	25.1	25.0
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, Empyema, and Lung Abscess	7.9	7.8	7.1	6.5	7.6	4.2	4.7	4.6	4.9	5.7
Proliferative diabetic retinopathy and vitreous hemorrhage	1.1	0.8	1.1	1.0	1.0	0.9	0.6	1.0	1.0	0.9
Dialysis status	1.9	1.9	1.8	1.8	2.3	1.2	1.5	1.9	2.3	2.2
Renal failure	26.8	30.2	31.5	31.3	32.7	21.0	22.8	23.0	24.3	25.4
Decubitus ulcer of skin	9.4	10.6	10.1	8.7	10.0	5.4	6.9	7.5	7.2	8.4
Chronic ulcer of skin, except decubitus	4.9	4.3	4.9	4.3	5.2	3.4	4.1	4.4	3.9	4.2
Vertebral fractures without spinal cord injury	2.8	2.8	2.9	2.0	2.5	3.1	2.8	3.1	3.2	3.3
Hip fracture/dislocation	5.4	5.1	6.4	5.7	6.0	4.7	5.9	5.9	4.7	5.1
Major complications of medical care and trauma	6.5	7.4	6.2	6.9	7.2	5.0	5.7	5.2	5.5	5.8
Artificial openings for feeding or elimination	2.8	4.7	4.0	4.1	4.5	2.5	3.2	3.3	3.3	3.5
N (Residents)	2,438	2,316	2,329	2,302	2,317	4,828	4,585	4,421	4,380	4,248

(continued)

Appendix Table B.3 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Missouri

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Facility Level:										
Any PA/NP in facility	43.8	50.0	75.0	87.5	87.5	43.8	43.8	43.8	50.0	65.6
RN staffing HPRD	0.27	0.28	0.34	0.37	0.37	0.23	0.21	0.24	0.26	0.30
	(0.13)	(0.12)	(0.18)	(0.17)	(0.11)	(0.14)	(0.12)	(0.13)	(0.19)	(0.16)
LPN staffing HPRD	0.57	0.59	0.68	0.59	0.63	0.66	0.63	0.71	0.68	0.69
	(0.15)	(0.14)	(0.23)	(0.18)	(0.17)	(0.19)	(0.19)	(0.25)	(0.24)	(0.31)
CNA staffing HPRD	2.07	2.20	2.57	2.30	2.16	2.05	2.01	2.04	1.98	2.01
	(0.26)	(0.46)	(0.78)	(0.37)	(0.45)	(0.40)	(0.42)	(0.36)	(0.37)	(0.46)
For profit	87.5	87.5	87.5	87.5	87.5	71.9	71.9	71.9	75.0	75.0
Chain	87.5	87.5	87.5	87.5	87.5	46.9	40.6	34.4	37.5	37.5
Percent Medicaid residents	57.2	55.9	59.5	61.7	61.8	58.6	58.8	59.1	61.1	60.6
	(13.9)	(18.1)	(16.6)	(16.7)	(16.6)	(19.2)	(17.8)	(18.9)	(19.2)	(18.5)
Percent Medicare residents	16.4	14.6	13.7	12.3	9.4	11.2	11.4	10.6	11.2	10.7
	(10.0)	(10.5)	(8.2)	(6.6)	(4.2)	(7.9)	(8.7)	(9.5)	(8.7)	(8.6)
Percent residents with advance directives	42.8	37.8	41.1	36.6	37.0	56.3	63.2	67.3	59.1	53.6
	(27.3)	(26.9)	(27.7)	(22.6)	(31.5)	(32.2)	(29.9)	(30.3)	(35.7)	(31.2)
Alzheimer's unit in facility	50.0	56.3	56.3	62.5	62.5	46.9	46.9	37.5	43.8	40.6
N (Facilities)	16	16	16	16	16	32	32	32	32	32

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

ECCP = Enhanced Care and Coordination Providers; MA = Medicare Advantage; BMI = Body Mass Index; ADL = Activities of Daily Living; PA = Physician Assistant; NP = Nursing Practitioner; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide; HPRD = Hours Per Resident Day.

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included.

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av08/nhpah252).

Table B.4
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nebraska

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Resident Level:										
Exposure (Initiative-related days)[1]	223.0	217.6	216.6	227.1	233.6	221.3	231.3	229.0	234.6	229.0
	(140.0)	(141.5)	(142.2)	(137.0)	(136.2)	(141.7)	(140.4)	(139.1)	(139.3)	(139.2)
Eligible due to no discharge plan	20.3	22.2	23.8	18.3	14.4	23.2	20.6	20.4	20.1	18.9
Dual eligible (any episode month)	71.8	71.2	72.0	72.9	73.7	62.5	65.7	66.2	66.0	65.5
MA plan (any episode month)	1.3	2.6	2.5	2.0	2.4	0.9	1.1	0.8	1.1	1.2
Male, < 65	8.3	7.9	7.6	8.2	8.6	6.1	6.8	6.5	6.8	6.8
Male, 65–69	3.5	4.5	5.2	4.7	4.7	3.6	4.1	4.1	4.3	4.2
Male, 70–74	4.4	4.0	4.3	5.0	4.1	3.2	3.6	4.3	4.2	4.6
Male, 75–79	4.9	5.4	5.9	5.5	5.4	5.2	4.1	4.2	4.6	4.5
Male, 80–84	5.3	5.3	4.6	6.0	5.3	7.1	7.2	6.7	6.1	6.8
Male, 85–89	4.5	5.1	5.1	4.1	5.6	6.5	7.2	7.1	6.5	6.5
Male, 90–94	2.5	2.6	2.2	2.6	3.2	3.0	3.4	3.0	3.6	3.9
Male, 95+	0.4	0.3	0.3	0.5	0.5	1.1	1.2	1.3	1.0	0.8
Female, < 65	7.7	7.8	7.9	8.0	7.4	6.1	6.6	6.8	6.9	5.8
Female, 65–69	4.7	5.0	5.5	5.2	5.3	3.8	4.0	3.7	4.1	4.6
Female, 70–74	5.2	5.7	6.2	6.0	7.2	5.0	4.8	4.8	5.1	5.0
Female, 75–79	7.7	8.0	7.3	7.6	7.0	7.7	7.4	7.6	7.0	7.3
Female, 80–84	10.2	9.8	10.6	10.0	9.5	10.9	10.8	10.2	10.0	9.6
Female, 85–89	13.1	12.0	11.6	11.8	11.9	14.4	13.6	13.4	13.5	13.1
Female, 90–94	11.6	10.8	9.5	9.4	9.5	10.7	10.2	10.8	10.9	11.0
Female, 95+	5.9	5.6	6.2	5.4	5.2	5.7	5.2	5.5	5.4	5.7

(continued)

Table B.4 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nebraska

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
White, non-Hispanic	84.5	84.5	82.0	79.0	78.8	91.2	89.1	88.4	86.8	83.2
Black, non-Hispanic	13.0	13.2	13.6	13.6	13.6	4.2	4.3	3.7	3.6	4.4
Other race/ethnicity	2.5	2.3	4.4	7.4	7.7	4.6	6.6	7.9	9.7	12.4
Dementia	43.1	41.8	39.9	42.6	44.7	42.4	44.8	44.1	41.7	43.1
Anemia	21.4	24.6	23.8	25.9	26.9	18.8	20.0	19.9	21.4	21.9
BMI	27.8	27.8	27.9	28.6	28.5	27.5	27.7	27.8	28.1	27.9
	(8.6)	(8.3)	(8.8)	(9.1)	(8.8)	(7.6)	(7.7)	(7.6)	(7.9)	(8.0)
ADL Score	16.8	16.7	16.6	16.2	16.4	16.2	16.0	15.9	15.8	16.1
	(7.0)	(6.4)	(6.2)	(6.2)	(5.9)	(7.2)	(7.1)	(7.0)	(6.8)	(6.6)
Any hospice use in 2 months before episode period	5.6	5.3	7.1	6.6	7.4	6.1	6.2	7.9	7.7	6.7
HIV/AIDS	0.1	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Septicemia/shock	6.4	6.9	7.2	8.1	9.5	4.8	4.8	5.1	6.6	6.5
Cancers	10.4	10.5	11.0	9.7	10.5	10.2	10.8	10.0	8.8	9.9
Diabetes with complications	15.7	18.0	19.2	20.4	21.8	14.1	14.1	14.8	13.8	14.0
Diabetes without complications	16.8	17.8	16.7	16.5	16.5	19.0	19.6	20.1	19.3	19.4
Liver problems	1.5	1.8	2.1	1.5	1.8	0.9	1.2	0.9	0.9	1.2
Intestinal obstruction/perforation	5.2	4.1	4.1	3.6	3.9	3.1	4.1	3.7	3.4	3.2
Pancreatic disease	2.4	2.2	1.5	2.0	2.2	0.8	1.4	1.2	1.4	1.4
Inflammatory bowel disease	0.9	1.3	1.2	0.9	0.8	0.8	0.9	0.9	0.8	0.7
Bone/joint/muscle infections/necrosis	2.6	2.0	2.8	3.2	2.9	1.6	2.1	2.1	1.7	2.0
Rheumatoid arthritis and inflammatory connective tissue disease	4.4	5.2	5.7	6.2	6.5	3.8	5.0	4.8	5.4	4.7

(continued)

Table B.4 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nebraska

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Severe hematological disorders	1.2	1.3	0.8	1.0	0.8	1.1	0.5	0.5	0.6	0.7
Disorders of immunity	1.0	2.0	3.1	1.5	1.9	1.4	1.4	1.9	2.2	1.8
Schizophrenia	4.8	4.8	5.6	6.2	6.3	6.7	7.1	7.1	6.7	7.3
Major depressive, bipolar, and paranoid disorders	10.6	12.3	13.3	15.7	16.6	9.7	10.8	10.7	12.0	12.7
Paraplegia, quadriplegia, other extensive paralysis, cerebral palsy, and other paralytic syndromes	2.8	3.3	3.9	4.3	5.0	3.4	3.1	3.6	3.8	3.2
Spinal cord disorders/injuries	1.4	1.6	0.6	1.2	1.2	1.0	0.8	0.5	1.0	0.7
Multiple sclerosis	2.3	2.1	2.5	2.8	2.7	1.8	2.0	1.8	2.0	2.0
Seizure disorders and convulsions	9.1	8.3	9.7	10.4	11.1	7.9	8.2	7.8	8.5	8.1
Coma, brain compression/anoxic damage	0.6	0.9	1.6	1.0	0.7	0.7	0.7	0.6	0.6	0.7
Respirator dependence/tracheostomy status	0.9	1.1	1.4	1.4	0.9	1.6	1.2	1.4	1.2	1.4
Cardio-respiratory failure and shock	12.1	13.6	13.9	13.4	14.0	11.3	12.1	13.1	13.7	14.1
Congestive heart failure	26.2	29.5	25.4	28.2	26.7	25.7	25.9	25.2	25.6	25.0
Acute myocardial infarction	2.4	2.0	1.3	2.6	1.9	1.7	1.9	1.3	1.9	1.8
Unstable angina and other acute ischemic heart disease	2.1	1.2	1.7	2.6	2.0	1.4	1.1	1.3	1.6	1.6
Angina pectoris/old myocardial infarction	4.0	5.8	4.9	5.4	5.5	3.8	5.3	5.1	4.8	3.7

(continued)

Table B.4 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nebraska

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Specified heart arrhythmias	22.3	24.5	24.5	23.8	25.1	22.6	24.7	24.5	25.5	25.4
Ischemic or unspecified stroke	10.7	10.5	11.4	11.2	14.7	7.8	7.6	7.7	8.5	8.2
Vascular disease with complications	28.6	29.6	30.8	34.5	36.3	27.8	29.7	30.6	29.6	29.1
COPD	24.1	25.1	26.2	26.3	25.1	19.8	21.3	21.8	21.3	21.0
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, Empyema, and Lung Abscess	4.2	4.2	3.9	3.1	4.1	4.1	4.4	3.4	3.8	3.9
Proliferative diabetic retinopathy and vitreous hemorrhage	1.3	1.4	1.1	1.2	1.5	0.9	0.6	1.0	1.0	1.2
Dialysis status	2.1	2.2	2.9	2.6	2.2	0.9	1.3	1.6	1.4	1.3
Renal failure	21.9	22.4	23.4	25.7	27.9	17.7	20.5	19.3	21.2	21.1
Decubitus ulcer of skin	7.8	8.1	8.6	11.5	11.4	6.8	7.4	6.7	7.1	7.5
Chronic ulcer of skin, except decubitus	5.6	5.8	5.9	6.0	5.0	5.0	6.0	4.8	4.8	5.4
Vertebral fractures without spinal cord injury	3.5	3.5	1.7	2.5	2.4	2.9	3.2	3.4	3.4	3.4
Hip fracture/dislocation	5.1	4.7	4.1	4.4	4.6	4.5	5.0	4.2	4.9	4.8
Major complications of medical care and trauma	7.4	9.4	7.3	8.3	8.4	5.9	7.4	5.9	6.2	5.5
Artificial openings for feeding or elimination	4.9	5.6	5.3	5.0	5.1	3.8	3.9	4.0	3.7	3.9
N (Residents)	1,637	1,594	1,555	1,478	1,238	3,610	3,375	3,309	3,211	3,186

(continued)

Appendix Table B.4 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nebraska

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Facility Level:										
Any PA/NP in facility	53.3	46.7	60.0	73.3	85.7	36.7	36.7	43.3	48.3	41.4
RN staffing HPRD	0.35	0.39	0.43	0.46	0.44	0.52	0.53	0.55	0.56	0.53
	(0.17)	(0.17)	(0.20)	(0.26)	(0.23)	(0.41)	(0.41)	(0.37)	(0.48)	(0.30)
LPN staffing HPRD	0.84	0.87	0.81	0.80	0.84	0.85	0.90	0.87	0.81	0.75
	(0.29)	(0.29)	(0.25)	(0.17)	(0.22)	(0.60)	(0.63)	(0.54)	(0.55)	(0.57)
CNA staffing HPRD	2.05	2.12	2.00	2.20	2.20	1.99	1.96	1.99	1.90	1.88
	(0.38)	(0.29)	(0.35)	(0.37)	(0.54)	(0.82)	(0.87)	(0.82)	(1.00)	(0.80)
For profit	66.7	66.7	66.7	66.7	71.4	56.7	56.7	56.7	58.6	58.6
Chain	80.0	73.3	73.3	73.3	78.6	56.7	60.0	63.3	69.0	72.4
Percent Medicaid residents	62.6	63.9	61.5	65.2	63.9	62.4	61.8	61.6	62.2	58.8
	(16.1)	(13.6)	(15.1)	(14.9)	(14.4)	(15.1)	(15.9)	(14.2)	(14.6)	(16.4)
Percent Medicare residents	11.9	11.5	13.2	12.6	11.9	12.5	12.3	12.3	11.8	12.6
	(4.4)	(8.5)	(8.2)	(8.1)	(7.4)	(6.6)	(6.2)	(6.3)	(6.9)	(6.5)
Percent residents with advance directives	59.4	35.6	43.8	45.9	39.6	62.3	65.0	73.1	60.0	51.1
	(29.5)	(33.3)	(34.7)	(37.9)	(39.8)	(35.6)	(35.3)	(34.4)	(42.5)	(40.9)
Alzheimer's unit in facility	26.7	26.7	26.7	20.0	21.4	43.3	43.3	43.3	34.5	34.5
N (Facilities)	15	15	15	15	14	30	30	30	29	29

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

ECCP = Enhanced Care and Coordination Providers; MA = Medicare Advantage; BMI = Body Mass Index; ADL = Activities of Daily Living; PA = Physician Assistant; NP = Nursing Practitioner; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide; HPRD = Hours Per Resident Day.

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included.

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av08/nhpah252).

Table B.5
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nevada

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Resident Level:										
Exposure (Initiative-related days)[1]	178.4	175.1	176.3	190.5	196.0	192.5	182.5	191.4	196.4	205.3
	(143.2)	(145.6)	(144.5)	(146.0)	(146.7)	(143.5)	(144.4)	(145.2)	(144.6)	(143.8)
Eligible due to no discharge plan	37.2	40.0	37.5	33.9	33.0	31.0	34.6	32.7	30.8	27.1
Dual eligible (any episode month)	61.0	60.1	58.5	63.6	64.6	64.2	62.8	62.1	65.0	65.7
MA plan (any episode month)	3.2	3.2	2.9	4.2	4.7	3.6	3.0	3.7	2.8	4.2
Male, < 65	5.8	6.8	7.1	7.7	8.3	8.8	8.9	9.0	9.9	10.1
Male, 65–69	4.4	5.6	5.3	6.0	5.5	6.7	6.5	6.1	7.8	7.8
Male, 70–74	4.7	5.5	6.0	6.4	5.8	5.6	6.4	6.7	6.8	7.5
Male, 75–79	6.9	6.6	6.4	6.4	6.3	6.7	7.3	6.3	6.5	8.3
Male, 80–84	6.3	6.5	6.0	5.3	5.5	7.2	8.0	6.4	7.1	6.8
Male, 85–89	5.8	5.5	4.7	4.8	4.9	6.3	6.0	6.8	6.4	7.1
Male, 90–94	3.0	2.5	2.7	2.1	2.4	2.5	3.2	3.0	3.7	3.5
Male, 95+	0.6	0.5	0.5	0.5	0.5	1.1	0.7	0.9	0.8	0.7
Female, < 65	5.9	6.2	6.1	7.2	7.3	6.0	6.2	6.9	6.7	5.3
Female, 65–69	5.4	5.0	5.5	5.8	6.1	5.0	5.3	5.5	5.6	5.5
Female, 70–74	5.2	6.1	6.9	7.4	7.9	5.9	5.6	6.0	5.8	5.4
Female, 75–79	8.3	8.4	8.9	8.1	8.6	6.9	6.8	8.1	6.5	6.1
Female, 80–84	11.6	11.2	10.9	9.9	9.5	10.0	9.2	8.0	8.3	8.7
Female, 85–89	13.6	12.6	11.4	11.3	10.1	10.8	10.3	10.3	8.6	7.9
Female, 90–94	8.9	8.1	8.3	7.8	7.9	7.7	6.6	6.8	6.5	7.1
Female, 95+	3.6	3.0	3.3	3.3	3.5	2.9	2.9	3.1	2.7	2.3

(continued)

Table B.5 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nevada

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
White, non-Hispanic	79.3	76.9	75.5	71.6	70.6	77.5	77.9	77.5	75.0	75.4
Black, non-Hispanic	8.3	8.7	9.1	8.9	9.1	9.2	9.8	10.4	11.4	11.8
Other race/ethnicity	12.4	14.4	15.4	19.5	20.3	13.3	12.3	12.1	13.6	12.8
Dementia	41.8	41.5	38.7	36.2	34.2	40.0	41.4	38.2	38.5	39.2
Anemia	28.4	31.8	30.6	28.3	27.8	26.9	30.6	26.8	29.7	24.9
BMI	25.6	25.8	25.8	26.2	26.1	25.6	25.7	25.8	25.9	26.1
	(7.1)	(7.7)	(7.2)	(7.3)	(7.2)	(7.1)	(7.2)	(7.2)	(7.2)	(6.9)
ADL Score	18.0	18.0	18.1	17.9	18.0	18.4	18.4	17.9	17.9	18.0
	(6.2)	(6.0)	(5.8)	(5.6)	(5.4)	(6.9)	(6.9)	(6.9)	(6.8)	(6.7)
Any hospice use in 2 months before episode period	5.8	5.8	5.1	4.6	4.1	5.1	4.7	5.0	4.2	3.6
HIV/AIDS	0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.3	0.5	0.5
Septicemia/shock	9.6	10.1	10.2	10.3	11.3	10.1	11.6	10.2	11.2	13.0
Cancers	10.8	10.9	11.1	9.7	9.8	8.5	9.6	9.1	10.2	8.7
Diabetes with complications	15.6	17.7	19.4	21.4	22.1	16.1	17.3	16.9	16.9	16.9
Diabetes without complications	16.7	16.8	16.3	15.5	15.8	17.1	17.4	17.0	17.9	19.7
Liver problems	1.5	2.5	2.1	2.5	2.5	2.5	2.7	3.0	3.4	3.0
Intestinal obstruction/perforation	4.5	4.6	4.3	4.2	4.3	4.5	4.7	4.7	3.9	3.9
Pancreatic disease	2.0	2.3	2.3	2.4	2.1	1.9	1.9	1.8	1.9	1.2
Inflammatory bowel disease	1.1	1.2	1.3	1.1	1.2	1.1	1.3	1.5	1.3	1.0
Bone/joint/muscle infections/necrosis	3.5	3.4	3.6	4.1	3.9	3.7	4.5	3.0	3.8	3.6
Rheumatoid arthritis and inflammatory connective tissue disease	5.2	5.3	5.2	5.6	4.9	3.0	4.0	3.7	3.8	3.3

(continued)

Table B.5 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nevada

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Severe hematological disorders	2.1	2.0	1.0	1.0	1.0	2.1	1.9	0.7	0.7	0.8
Disorders of immunity	1.1	1.2	2.2	2.5	2.1	0.7	2.0	1.9	2.8	2.9
Schizophrenia	3.0	2.6	3.1	3.7	3.4	4.5	6.3	6.2	6.0	5.6
Major depressive, bipolar, and paranoid disorders	14.2	15.2	15.7	16.4	17.7	15.9	19.2	18.7	19.5	20.5
Paraplegia, quadriplegia, other extensive paralysis, cerebral palsy, and other paralytic syndromes	3.3	3.6	3.4	3.9	5.3	3.4	3.3	3.5	4.1	3.7
Spinal cord disorders/injuries	1.4	1.2	1.4	1.2	1.4	1.7	1.4	1.0	0.6	1.2
Multiple sclerosis	1.8	1.7	2.0	1.8	2.3	1.5	1.8	1.6	1.2	1.2
Seizure disorders and convulsions	9.9	11.2	11.5	13.2	13.7	9.6	12.4	11.9	12.8	12.7
Coma, brain compression/anoxic damage	1.5	1.7	1.8	1.8	2.0	1.7	1.6	1.3	1.5	2.1
Respirator dependence/tracheostomy status	3.5	4.7	4.3	4.7	5.1	5.6	7.5	5.2	6.5	6.7
Cardio-respiratory failure and shock	13.4	13.9	14.8	14.9	16.3	13.2	13.9	13.3	14.9	13.9
Congestive heart failure	29.3	28.0	28.8	28.2	27.5	28.9	28.2	26.8	28.1	26.1
Acute myocardial infarction	2.7	3.1	2.6	2.6	3.4	2.9	3.7	2.1	2.9	3.2
Unstable angina and other acute ischemic heart disease	2.3	2.2	2.5	2.8	2.9	2.6	2.4	2.8	2.8	3.3
Angina pectoris/old myocardial infarction	6.2	7.3	7.1	6.3	6.2	5.7	7.1	6.5	6.2	5.3

(continued)

Table B.5 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nevada

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Specified heart arrhythmias	22.5	22.5	23.7	23.6	23.6	22.0	21.4	21.8	23.7	23.0
Ischemic or unspecified stroke	15.3	15.1	14.0	15.2	14.4	15.4	15.1	13.3	13.5	15.1
Vascular disease with complications	42.0	41.3	48.5	44.3	45.1	41.1	43.3	39.3	40.4	40.0
COPD	29.3	29.1	29.7	30.3	30.8	30.4	31.4	29.8	29.5	27.1
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, Empyema, and Lung Abscess	7.3	7.2	7.9	7.8	7.5	8.7	8.5	7.2	7.9	9.5
Proliferative diabetic retinopathy and vitreous hemorrhage	0.8	1.2	1.1	1.2	1.4	0.8	0.7	1.3	0.9	1.0
Dialysis status	1.4	2.5	2.7	2.6	2.8	2.4	2.7	2.2	3.1	2.4
Renal failure	25.0	25.6	27.0	27.7	29.1	24.6	25.9	25.5	27.5	30.0
Decubitus ulcer of skin	12.1	14.4	13.5	14.2	14.0	12.9	15.6	14.2	15.2	15.7
Chronic ulcer of skin, except decubitus	4.1	3.7	4.2	4.2	3.9	3.7	3.3	3.9	3.9	3.7
Vertebral fractures without spinal cord injury	3.4	3.3	2.4	2.9	2.5	2.9	2.9	2.3	2.9	2.3
Hip fracture/dislocation	7.0	6.9	6.2	5.8	6.1	5.2	6.1	5.3	4.7	5.6
Major complications of medical care and trauma	7.4	8.7	8.0	7.9	8.4	9.3	9.3	7.1	8.4	8.3
Artificial openings for feeding or elimination	5.4	6.3	5.7	6.7	8.1	5.7	8.1	7.5	8.1	8.1
N (Residents)	3,800	3,889	3,820	3,463	3,354	2,075	2,079	2,035	1,955	1,796

(continued)

Appendix Table B.5 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Nevada

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Facility Level:										
Any PA/NP in facility	25.0	41.7	66.7	66.7	62.5	52.4	57.1	52.4	57.9	63.2
RN staffing HPRD	0.50	0.59	0.69	0.63	0.59	0.84	0.82	0.94	0.94	1.05
	(0.24)	(0.31)	(0.32)	(0.26)	(0.27)	(0.57)	(0.64)	(0.77)	(0.74)	(0.95)
LPN staffing HPRD	0.64	0.65	0.65	0.80	0.78	0.83	0.87	0.94	0.83	0.97
	(0.27)	(0.29)	(0.25)	(0.46)	(0.37)	(0.42)	(0.43)	(0.46)	(0.35)	(0.66)
CNA staffing HPRD	1.53	1.85	2.04	1.95	2.03	1.97	2.08	2.05	2.25	2.24
	(1.02)	(0.93)	(0.72)	(0.95)	(0.64)	(1.24)	(1.04)	(0.97)	(0.68)	(1.02)
For profit	87.5	87.5	87.5	87.5	91.7	61.9	57.1	57.1	52.6	52.6
Chain	75.0	87.5	87.5	91.7	91.7	47.6	47.6	38.1	31.6	42.1
Percent Medicaid residents	56.5	60.6	59.1	56.9	59.2	52.4	54.0	51.6	54.5	56.6
	(17.3)	(16.6)	(16.8)	(15.5)	(15.9)	(31.0)	(28.1)	(26.0)	(22.3)	(18.9)
Percent Medicare residents	23.7	20.2	20.7	20.6	19.5	15.6	13.3	12.5	13.9	12.2
	(14.8)	(14.3)	(13.2)	(12.3)	(12.8)	(19.3)	(15.6)	(14.4)	(14.3)	(14.7)
Percent residents with advance directives	41.3	42.0	41.7	36.3	30.7	57.9	39.9	31.8	43.1	46.3
	(25.1)	(32.5)	(30.8)	(31.7)	(34.1)	(32.2)	(37.1)	(35.3)	(38.5)	(40.6)
Alzheimer's unit in facility	20.8	20.8	20.8	25.0	25.0	9.5	14.3	14.3	10.5	15.8
N (Facilities)	24	24	24	24	24	21	21	21	19	19

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

ECCP = Enhanced Care and Coordination Providers; MA = Medicare Advantage; BMI = Body Mass Index; ADL = Activities of Daily Living; PA = Physician Assistant; NP = Nursing Practitioner; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide; HPRD = Hours Per Resident Day.

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included.

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av08/nhpah252).

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

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Resident Level:										
Exposure (Initiative-related days)[1]	238.1	236.8	231.5	235.2	229.7	239.1	242.2	240.3	236.5	230.7
	(137.1)	(138.9)	(139.5)	(136.5)	(137.8)	(139.0)	(137.5)	(137.6)	(138.3)	(137.8)
Eligible due to no discharge plan	18.9	19.6	18.9	18.0	18.8	20.3	18.5	17.7	19.0	19.3
Dual eligible (any episode month)	80.0	82.7	81.4	82.6	81.7	80.9	82.5	82.3	82.1	82.0
MA plan (any episode month)	8.0	8.5	9.6	11.8	14.4	7.6	9.5	11.5	12.0	16.2
Male, < 65	5.0	5.3	5.8	6.4	5.8	4.5	4.5	4.6	4.8	5.1
Male, 65–69	3.7	3.6	3.9	4.2	4.9	3.9	3.8	4.1	4.1	4.6
Male, 70–74	4.2	4.1	4.4	4.9	5.0	4.3	4.3	4.3	4.6	5.1
Male, 75–79	5.3	5.5	5.6	5.5	5.8	5.1	5.1	5.5	5.2	5.4
Male, 80–84	6.9	6.7	6.2	6.0	6.6	6.4	6.2	6.3	5.8	5.8
Male, 85–89	6.4	6.8	7.0	6.4	7.0	5.8	6.1	5.9	6.2	5.7
Male, 90–94	3.6	4.2	4.5	4.6	4.3	3.5	3.7	3.8	3.6	4.2
Male, 95+	1.1	1.2	1.2	1.3	1.6	1.3	1.3	1.2	1.2	1.3
Female, < 65	3.5	3.7	3.6	3.9	3.9	3.0	3.2	3.3	3.8	3.6
Female, 65–69	3.2	3.6	3.3	3.8	3.8	3.5	3.4	3.4	3.6	4.0
Female, 70–74	4.3	4.2	4.4	4.7	4.7	4.4	4.5	4.4	5.1	4.8
Female, 75–79	6.7	6.7	6.7	6.7	6.2	7.0	6.5	6.9	6.9	7.0
Female, 80–84	11.6	11.1	10.6	9.4	9.3	11.5	11.6	11.2	10.7	10.3
Female, 85–89	16.1	14.9	14.9	14.1	13.0	16.3	16.3	15.4	15.2	14.3
Female, 90–94	11.9	11.9	11.5	11.8	11.9	13.0	12.6	12.6	12.3	12.2
Female, 95+	6.5	6.6	6.5	6.4	6.2	6.6	7.0	7.1	6.8	6.5

(continued)

Table B.6 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), New York

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
White, non-Hispanic	61.8	60.4	59.8	58.1	56.7	63.8	62.3	61.9	61.0	59.9
Black, non-Hispanic	21.1	22.0	21.9	22.4	23.1	19.0	19.1	19.1	19.1	19.8
Other race/ethnicity	17.0	17.6	18.4	19.4	20.1	17.2	18.6	19.0	19.9	20.3
Dementia	53.8	56.9	54.0	54.8	54.4	55.5	58.4	58.7	57.9	56.1
Anemia	27.5	29.0	29.3	29.5	30.3	26.1	28.7	29.1	28.2	28.6
BMI	25.6	25.6	25.4	25.5	25.6	25.6	25.6	25.6	25.6	25.6
	(6.9)	(6.9)	(7.1)	(7.2)	(7.3)	(6.4)	(6.4)	(6.4)	(6.5)	(6.6)
ADL Score	19.4	19.6	19.6	19.6	19.8	18.7	18.8	19.0	19.1	19.2
	(6.3)	(6.3)	(5.9)	(5.6)	(5.3)	(7.0)	(6.9)	(6.7)	(6.4)	(6.1)
Any hospice use in 2 months before episode period	1.9	2.4	2.4	2.5	2.7	1.4	1.6	1.6	1.6	1.4
HIV/AIDS	1.7	1.9	2.4	2.8	1.8	1.1	1.0	1.1	1.4	1.5
Septicemia/shock	10.2	10.7	11.3	13.0	12.4	10.4	11.1	10.9	11.3	11.9
Cancers	13.1	13.3	13.4	12.7	12.6	12.7	12.9	12.6	13.4	13.2
Diabetes with complications	17.1	18.0	18.1	19.0	19.3	16.6	17.6	18.8	19.2	20.6
Diabetes without complications	18.8	19.7	19.8	18.7	18.7	20.1	20.0	19.3	18.5	18.4
Liver problems	2.3	2.5	2.4	2.7	2.4	2.2	2.3	2.5	2.9	2.7
Intestinal obstruction/perforation	4.2	4.1	4.3	4.0	4.2	3.8	4.4	4.2	4.1	3.7
Pancreatic disease	1.6	2.1	1.8	2.0	2.3	1.6	2.0	2.2	1.8	2.1
Inflammatory bowel disease	1.1	1.3	1.4	1.4	0.9	1.4	1.6	1.3	1.4	1.2
Bone/joint/muscle infections/necrosis	3.4	3.7	3.9	4.1	3.9	3.3	3.4	3.4	3.5	3.8
Rheumatoid arthritis and inflammatory connective tissue disease	4.2	4.5	4.8	4.3	4.6	4.2	4.8	4.7	4.6	4.7

(continued)

Table B.6 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), New York

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Severe hematological disorders	2.0	1.7	1.1	1.3	1.1	1.9	1.7	1.1	1.2	1.1
Disorders of immunity	0.9	1.4	1.7	1.9	1.8	0.9	1.2	1.5	1.8	1.6
Schizophrenia	5.3	5.3	5.2	5.8	5.2	7.3	7.9	7.5	8.1	8.4
Major depressive, bipolar, and paranoid disorders	12.3	13.6	15.1	16.6	16.5	13.3	14.2	15.4	15.5	17.0
Paraplegia, quadriplegia, other extensive paralysis, cerebral palsy, and other paralytic syndromes	2.6	2.7	3.1	3.6	4.2	2.5	2.8	2.9	3.3	3.9
Spinal cord disorders/injuries	1.3	1.2	1.2	1.4	1.5	1.4	1.6	1.4	1.3	1.4
Multiple sclerosis	1.3	1.4	1.5	1.6	1.5	1.0	1.1	1.1	1.1	1.1
Seizure disorders and convulsions	11.8	12.1	12.0	12.7	12.4	11.0	11.5	11.5	12.4	12.3
Coma, brain compression/anoxic damage	1.3	1.7	1.6	1.4	1.6	1.1	1.1	1.2	1.3	1.5
Respirator dependence/tracheostomy status	1.9	2.4	2.3	2.4	2.5	1.3	1.6	1.4	1.4	1.6
Cardio-respiratory failure and shock	9.1	10.2	10.3	10.8	10.7	8.9	9.1	10.0	10.0	10.3
Congestive heart failure	34.2	34.1	32.7	33.2	31.7	34.5	34.3	33.5	32.3	31.7
Acute myocardial infarction	3.6	4.0	3.5	3.9	2.9	2.9	2.8	2.9	2.7	2.6
Unstable angina and other acute ischemic heart disease	4.4	4.6	4.3	4.1	5.0	4.0	4.2	3.9	3.6	4.1
Angina pectoris/old myocardial infarction	5.5	6.8	6.6	6.3	6.6	6.4	6.6	6.8	6.6	6.9

(continued)

Table B.6 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), New York

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Specified heart arrhythmias	25.5	26.0	26.2	26.1	26.6	23.9	24.9	25.2	25.4	24.8
Ischemic or unspecified stroke	16.0	16.1	15.9	15.7	14.2	15.2	15.0	14.6	14.3	13.8
Vascular disease with complications	53.4	55.1	54.7	53.6	52.9	53.9	56.6	55.2	53.7	52.1
COPD	19.9	21.5	21.7	21.1	20.6	21.3	22.1	22.2	22.4	21.3
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, Empyema, and Lung Abscess	5.7	6.5	6.6	7.4	6.4	5.4	5.8	5.8	6.1	5.9
Proliferative diabetic retinopathy and vitreous hemorrhage	1.5	1.3	1.5	1.5	1.5	1.5	1.4	1.3	1.5	1.4
Dialysis status	2.2	2.7	2.9	3.6	3.9	1.8	2.0	2.2	2.3	2.5
Renal failure	22.9	24.1	23.7	24.0	25.6	20.7	21.4	22.4	23.0	23.1
Decubitus ulcer of skin	14.7	16.9	16.4	17.9	16.5	14.0	16.5	16.4	16.3	15.7
Chronic ulcer of skin, except decubitus	8.0	7.3	7.0	7.0	7.5	6.6	6.6	6.2	5.8	5.6
Vertebral fractures without spinal cord injury	2.0	2.3	2.3	2.4	2.6	2.1	2.2	2.3	2.5	2.3
Hip fracture/dislocation	5.7	5.4	5.0	5.4	5.3	5.4	5.3	5.5	5.6	4.9
Major complications of medical care and trauma	7.7	8.3	8.0	8.8	8.0	6.1	6.0	6.5	6.4	6.8
Artificial openings for feeding or elimination	4.7	6.2	6.4	6.5	6.2	4.3	5.2	5.0	4.8	5.1
N (Residents)	8,552	7,909	7,643	7,033	6,859	13,330	12,895	12,684	11,932	11,701

(continued)

Appendix Table B.6 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), New York

	ECCP					Comparison				
Characteristic	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Facility Level:										
Any PA/NP in facility	33.3	46.7	43.3	50.0	55.2	43.3	46.7	50.0	46.7	53.3
RN staffing HPRD	0.72	0.57	0.59	1.23 [a]	0.55	0.47	0.47	0.50	0.55	0.52
	(0.81)	(0.27)	(0.31)	(3.33)	(0.29)	(0.26)	(0.25)	(0.29)	(0.30)	(0.29)
LPN staffing HPRD	0.79	0.67	0.66	1.27 [a]	0.78	0.66	0.68	0.70	0.71	0.73
	(0.81)	(0.30)	(0.27)	(2.87)	(0.62)	(0.27)	(0.27)	(0.30)	(0.33)	(0.34)
CNA staffing HPRD	2.61	2.26	2.40	2.89 [a]	2.11	2.33	2.35	2.56	2.41	2.50
	(2.01)	(0.56)	(0.55)	(4.03)	(0.54)	(0.57)	(0.62)	(2.24)	(0.68)	(1.08)
For profit	33.3	33.3	33.3	46.7	41.4	48.3	50.0	55.0	50.0	55.0
Chain	10.0	10.0	6.7	3.3	0.0	10.0	15.0	15.0	10.0	8.3
Percent Medicaid residents	71.7	71.7	67.6	69.3	64.9	71.3	72.0	69.5	68.3	66.1
	(21.1)	(17.8)	(22.0)	(20.0)	(20.6)	(21.6)	(21.8)	(21.8)	(22.0)	(23.8)
Percent Medicare residents	11.6	12.6	12.4	13.7	14.4	12.0	11.9	12.9	13.2	14.3
	(8.2)	(7.5)	(8.9)	(10.5)	(11.9)	(11.7)	(13.0)	(13.0)	(13.5)	(14.2)
Percent residents with advance directives	58.7	61.4	58.6	63.0	61.2	65.6	67.0	65.9	63.1	63.6
	(23.5)	(24.6)	(25.6)	(25.7)	(22.9)	(23.8)	(24.2)	(24.4)	(26.9)	(28.9)
Alzheimer's unit in facility	16.7	16.7	13.3	13.3	20.7	8.3	8.3	10.0	10.0	6.7
N (Facilities)	30	30	30	30	29	60	60	60	60	60

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

ECCP = Enhanced Care and Coordination Providers; MA = Medicare Advantage; BMI = Body Mass Index; ADL = Activities of Daily Living; PA = Physician Assistant; NP = Nursing Practitioner; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide; HPRD = Hours Per Resident Day.

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included.

[a] The sudden hike in average staffing HPRD appears to be caused by one outlier, Rivington House. The resident census in this facility dropped abruptly from 163 in 2013 to just 2 residents in 2014 before the facility eventually closed in November 2014. Meanwhile, the facility still maintained 7.5 FTE RNs (down from 17 in 2013), 6 FTE LPNs (down from 15 in 2013), and 13 FTE CNAs (down from 59 in 2013). The substantial staff still available for just two residents translated into improbably high staffing levels in this facility right before its closure. This resulted in the substantial increase in ECCP-wide facility average staffing HPRD in 2014.

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av08/nhpah252).

Table B.7
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Pennsylvania

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Resident Level:										
Exposure (Initiative-related days)[1]	240.3	241.1	242.3	243.8	248.8	246.4	247.3	242.1	243.1	241.4
	(137.8)	(137.9)	(138.7)	(135.7)	(133.9)	(136.3)	(135.6)	(138.4)	(137.3)	(139.0)
Eligible due to no discharge plan	18.6	19.3	19.5	16.7	14.6	16.7	16.5	17.5	18.6	17.9
Dual eligible (any episode month)	78.1	78.0	78.0	80.0	81.6	77.7	78.4	77.4	77.4	78.9
MA plan (any episode month)	4.5	4.7	3.9	7.7	6.2	3.6	3.7	3.7	3.8	4.4
Male, < 65	5.4	6.2	7.2	7.9	9.0	6.0	6.3	6.9	6.8	7.4
Male, 65–69	3.3	4.1	4.6	4.8	4.5	3.0	3.1	3.6	4.0	3.9
Male, 70–74	3.7	4.0	4.6	4.1	4.9	3.9	4.2	4.2	4.5	4.5
Male, 75–79	4.5	5.1	5.4	5.9	5.2	4.6	4.6	4.6	4.7	4.8
Male, 80–84	5.5	5.4	5.6	5.4	4.9	6.2	6.1	5.6	5.3	5.0
Male, 85–89	6.0	5.4	5.2	4.8	5.0	5.7	5.8	5.5	5.7	5.3
Male, 90–94	3.1	2.7	2.6	2.6	2.9	2.8	2.7	2.9	2.8	2.9
Male, 95+	0.7	0.9	0.9	0.5	0.7	0.7	0.7	0.8	0.8	0.9
Female, < 65	5.6	5.2	5.2	5.7	5.6	4.9	5.5	5.5	5.5	5.7
Female, 65–69	3.4	4.1	4.1	4.5	4.4	3.5	3.6	4.4	4.3	4.6
Female, 70–74	4.5	4.9	5.3	6.0	6.0	5.0	5.1	5.2	5.2	5.7
Female, 75–79	6.0	5.8	6.3	6.3	7.4	7.7	7.5	7.2	7.7	7.7
Female, 80–84	13.4	12.9	11.1	11.0	9.8	13.0	11.9	11.2	10.7	10.1
Female, 85–89	16.2	15.8	14.9	13.2	13.9	15.9	15.4	14.8	14.4	14.5
Female, 90–94	13.0	12.2	11.9	12.0	10.5	11.5	12.0	11.8	12.2	11.7
Female, 95+	5.6	5.4	5.1	5.3	5.3	5.5	5.4	5.8	5.4	5.3

(continued)

Table B.7 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Pennsylvania

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
White, non-Hispanic	92.5	92.6	90.6	89.5	89.1	91.1	90.6	90.4	89.5	89.3
Black, non-Hispanic	6.7	6.6	8.2	8.7	9.4	5.5	5.5	5.6	5.8	5.3
Other race/ethnicity	0.8	0.8	1.3	1.8	1.5	3.5	3.9	4.0	4.6	5.4
Dementia	49.1	47.0	50.0	48.7	48.6	51.9	51.6	51.0	50.4	50.5
Anemia	29.3	29.9	30.6	31.4	32.1	26.9	29.6	30.2	30.2	29.9
BMI	26.9	27.3	27.4	27.6	27.5	27.1	27.3	27.4	27.4	27.4
	(7.5)	(7.8)	(7.8)	(8.2)	(8.2)	(7.5)	(7.6)	(7.6)	(7.6)	(7.9)
ADL Score	17.9	17.8	17.5	17.1	16.7	18.2	18.1	17.8	17.5	17.3
	(6.3)	(6.1)	(6.2)	(6.5)	(6.5)	(6.0)	(6.0)	(6.1)	(6.2)	(6.3)
Any hospice use in 2 months before episode period	4.0	3.2	4.2	4.4	4.2	4.9	4.8	4.6	4.1	4.2
HIV/AIDS	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.3	0.2	0.1
Septicemia/shock	8.7	9.2	8.9	9.1	8.5	8.1	8.6	9.0	8.7	8.6
Cancers	10.9	10.4	9.7	10.4	10.1	11.2	10.9	11.0	10.9	10.7
Diabetes with complications	17.5	17.5	17.7	19.3	19.1	18.4	19.0	19.6	19.7	21.3
Diabetes without complications	21.0	21.1	22.8	21.0	19.9	18.7	19.3	17.9	17.4	16.9
Liver problems	1.1	1.6	2.2	2.3	1.9	1.2	1.4	1.5	2.0	1.7
Intestinal obstruction/perforation	5.8	5.3	5.7	4.8	4.1	4.1	3.8	3.9	3.5	3.9
Pancreatic disease	1.2	1.6	1.1	1.3	1.1	1.7	1.5	1.7	1.3	1.3
Inflammatory bowel disease	0.9	0.9	0.9	1.1	0.9	0.7	0.9	0.7	0.7	0.7
Bone/joint/muscle infections/necrosis	2.6	2.6	2.7	3.0	2.6	2.4	2.4	2.5	2.4	3.0
Rheumatoid arthritis and inflammatory connective tissue disease	4.2	4.5	4.4	4.9	5.3	4.6	4.5	4.8	4.6	4.6

(continued)

Table B.7 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Pennsylvania

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Severe hematological disorders	1.4	1.7	0.8	1.0	1.1	1.6	1.5	0.9	0.7	0.7
Disorders of immunity	0.8	1.4	2.3	2.2	2.0	1.0	1.1	1.5	2.1	1.7
Schizophrenia	6.1	7.3	7.2	8.4	9.5	6.7	7.4	7.0	7.7	7.7
Major depressive, bipolar, and paranoid disorders	11.8	12.9	13.9	14.8	16.1	14.4	16.1	18.2	18.6	17.2
Paraplegia, quadriplegia, other extensive paralysis, cerebral palsy, and other paralytic syndromes	3.8	3.9	3.4	4.3	3.4	3.8	4.4	4.3	4.4	4.8
Spinal cord disorders/injuries	1.2	1.3	1.6	2.3	1.4	1.2	0.9	1.3	1.3	1.1
Multiple sclerosis	2.1	2.0	2.0	2.1	2.4	1.7	1.7	1.6	1.8	1.9
Seizure disorders and convulsions	11.9	12.0	12.9	13.8	13.5	10.7	11.5	11.4	11.5	11.6
Coma, brain compression/anoxic damage	1.6	0.9	1.1	1.2	1.5	1.0	1.3	1.3	1.0	1.5
Respirator dependence/tracheostomy status	1.3	1.7	1.1	1.9	0.9	1.4	1.5	1.6	1.7	1.9
Cardio-respiratory failure and shock	11.6	12.1	12.6	12.3	12.8	11.0	12.3	12.5	12.4	12.2
Congestive heart failure	31.5	31.9	29.4	28.6	28.3	29.9	28.8	27.8	27.6	27.7
Acute myocardial infarction	2.1	2.5	2.2	2.5	2.0	3.2	3.5	3.6	2.9	2.9
Unstable angina and other acute ischemic heart disease	3.5	2.0	2.7	2.0	2.0	2.9	2.6	2.5	3.0	3.4
Angina pectoris/old myocardial infarction	5.6	7.2	6.1	6.2	6.8	5.3	6.0	6.2	6.4	5.9

(continued)

Table B.7 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Pennsylvania

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Specified heart arrhythmias	26.9	28.5	27.1	27.0	27.0	25.7	26.2	25.8	26.4	24.6
Ischemic or unspecified stroke	13.7	14.3	13.9	13.3	13.4	12.4	12.0	11.9	12.0	11.6
Vascular disease with complications	53.8	53.7	52.9	57.0	57.2	62.4	61.6	63.7	64.0	63.3
COPD	26.8	29.1	28.2	26.0	26.3	24.3	24.9	24.4	25.0	25.0
Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, Empyema, and Lung Abscess	7.1	7.1	6.3	7.0	5.5	5.6	5.9	6.0	5.0	5.2
Proliferative diabetic retinopathy and vitreous hemorrhage	1.3	1.3	1.6	1.5	1.6	1.2	1.3	1.0	1.2	1.3
Dialysis status	1.8	1.9	2.3	1.7	1.9	1.5	1.6	1.7	1.5	1.8
Renal failure	21.6	24.5	25.0	25.3	25.1	23.3	25.2	25.4	26.6	26.0
Decubitus ulcer of skin	16.4	13.8	12.9	13.4	11.9	8.1	9.6	10.0	9.6	9.0
Chronic ulcer of skin, except decubitus	6.0	5.5	5.2	5.0	4.4	5.6	4.9	4.6	4.8	5.2
Vertebral fractures without spinal cord injury	2.6	2.5	2.5	2.2	2.8	2.7	2.9	2.7	2.7	2.8
Hip fracture/dislocation	5.6	4.9	5.2	4.8	5.2	5.6	5.1	4.5	4.3	4.5
Major complications of medical care and trauma	7.5	7.5	6.8	6.8	6.8	6.2	6.1	6.6	5.9	6.1
Artificial openings for feeding or elimination	3.8	4.6	5.0	5.0	4.3	3.7	4.3	4.9	4.2	4.9
N (Residents)	2,782	2,721	2,659	2,731	2,583	6,336	6,228	6,191	6,240	6,088

(continued)

Appendix Table B.7 (continued)
Resident and facility characteristics: Annual percentages (categorical variables) or means and standard deviations (continuous variables), Pennsylvania

	ECCP					Comparison				
Characteristic	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Facility Level:										
Any PA/NP in facility	5.3	26.3	57.9	57.9	57.9	42.1	47.4	42.1	42.1	63.2
RN staffing HPRD	0.42	0.44	0.47	0.44	0.46	0.43	0.43	0.46	0.48	0.48
	(0.13)	(0.11)	(0.15)	(0.19)	(0.12)	(0.19)	(0.18)	(0.21)	(0.22)	(0.24)
LPN staffing HPRD	0.91	0.82	1.02	0.76	0.87	0.87	0.83	0.88	0.87	0.87
	(0.34)	(0.26)	(1.16)	(0.23)	(0.32)	(0.20)	(0.18)	(0.25)	(0.23)	(0.24)
CNA staffing HPRD	1.89	1.98	2.07	1.82	1.90	2.10	2.13	2.16	2.18	2.14
	(0.89)	(0.57)	(0.29)	(0.65)	(0.75)	(0.58)	(0.53)	(0.40)	(0.48)	(0.42)
For profit	42.1	42.1	42.1	63.2	57.9	71.1	71.1	71.1	71.1	65.8
Chain	57.9	57.9	57.9	52.6	57.9	63.2	65.8	63.2	63.2	65.8
Percent Medicaid residents	72.2	71.9	75.3	75.7	74.3	74.5	75.4	73.3	72.8	74.6
	(10.4)	(10.9)	(8.0)	(9.1)	(10.2)	(10.7)	(10.5)	(10.8)	(12.4)	(11.6)
Percent Medicare residents	9.6	9.0	7.3	6.9	6.4	9.8	9.0	9.2	8.9	8.2
	(5.2)	(4.9)	(4.0)	(4.7)	(3.9)	(6.0)	(4.7)	(4.8)	(4.4)	(4.3)
Percent residents with advance directives	52.2	47.7	53.0	54.3	62.8	53.9	49.4	56.8	57.6	55.5
	(27.2)	(29.9)	(31.7)	(33.7)	(35.8)	(25.4)	(30.4)	(31.7)	(35.6)	(39.2)
Alzheimer's unit in facility	36.8	36.8	31.6	36.8	31.6	34.2	39.5	39.5	36.8	28.9
N (Facilities)	19	19	19	19	19	38	38	38	38	38

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

ECCP = Enhanced Care and Coordination Providers; MA = Medicare Advantage; BMI = Body Mass Index; ADL = Activities of Daily Living; PA = Physician Assistant; NP = Nursing Practitioner; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide; HPRD = Hours Per Resident Day.

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included.

SOURCE: RTI analysis of MDS, Medicare claims, and CASPER data (RTI program: av08/nhpah252).

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APPENDIX C
FACILITY STAFFING AND INSPECTION DEFICIENCIES

Appendix Tables C-1 through ***C-7*** show the percentage of binary variables and mean values (and standard deviation) of continuous variables for selected facility-level measures of direct care staffing and inspection survey deficiencies separately for the ECCP and Comparison groups, by year. Each table presents descriptions from a different state in the Initiative.

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Table C.1
Facility-level staffing and quality indicators: Means (standard deviations) or percentages, Alabama

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Total RN hours per resident day	0.36	0.36	0.40	0.41	0.42	0.32	0.35	0.35	0.40	0.39
	(0.15)	(0.16)	(0.19)	(0.17)	(0.20)	(0.14)	(0.15)	(0.16)	(0.16)	(0.14)
Total LPN hours per resident day	1.02	1.00	1.00	0.99	0.92	1.01	1.03	1.03	0.98	1.07
	(0.36)	(0.38)	(0.32)	(0.32)	(0.33)	(0.22)	(0.36)	(0.37)	(0.22)	(0.44)
Total CNA hours per resident day	2.70	2.57	2.23	2.58	2.55	2.52	2.49	2.45	2.50	2.56
	(0.68)	(0.78)	(1.17)	(0.73)	(0.60)	(0.44)	(0.49)	(0.66)	(0.55)	(0.42)
Health inspection score, scope-severity weighted	22.6	22.1	31.3	28.2	41.4	21.1	23.4	26.4	25.1	33.0
	(23.1)	(20.2)	(23.2)	(19.7)	(65.0)	(21.3)	(23.6)	(25.7)	(20.5)	(28.5)
Health inspection score for quality of care deficiency citations, scope-severity weighted	3.8	4.7	6.1	5.7	4.7	3.7	4.3	5.4	4.2	6.5
	(4.3)	(5.5)	(5.5)	(6.9)	(4.6)	(5.6)	(6.8)	(8.1)	(7.8)	(9.8)
Health inspection score for quality of life deficiency citations, scope-severity weighted	0.9	2.8	1.7	3.0	3.0	1.1	2.1	1.9	2.6	2.8
	(2.1)	(4.4)	(2.6)	(3.2)	(3.5)	(2.2)	(3.2)	(3.9)	(3.8)	(3.9)
Percentage with any severe (Grade G+) deficiency	4.3	0.0	0.0	8.7	4.3	2.2	4.3	13.0	4.3	6.5
N (Facilities)	23	23	23	23	23	46	46	46	46	46

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

ECCP = Enhanced Care and Coordination Providers; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide.

SOURCE: RTI analysis of CASPER data (RTI program: av08/nhpah252).

Table C.2
Facility-level staffing and quality indicators: Means (standard deviations) or percentages, Indiana

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Total RN hours per resident day	3.52 [a]	0.46	0.41	0.51	0.55	0.99	0.41	0.41	0.48	0.43
	(7.40)	(0.19)	(0.19)	(0.18)	(0.24)	(3.84)	(0.28)	(0.24)	(0.26)	(0.22)
Total LPN hours per resident day	4.62 [a]	1.03	1.08	0.96	0.89	1.55	1.00	0.99	1.00	0.95
	(8.63)	(0.24)	(0.29)	(0.24)	(0.23)	(3.75)	(0.51)	(0.25)	(0.27)	(0.24)
Total CNA hours per resident day	5.44 [a]	2.01	2.30	2.29	2.20	2.61	1.97	2.10	2.27	2.21
	(8.27)	(0.42)	(0.54)	(0.38)	(0.61)	(3.58)	(0.48)	(0.51)	(0.52)	(0.41)
Health inspection score, scope-severity weighted	25.1	31.8	34.9	32.8	31.8	47.7	27.5	29.9	33.8	35.9
	(31.2)	(23.3)	(22.8)	(15.4)	(17.6)	(58.9)	(26.6)	(30.8)	(26.4)	(37.7)
Health inspection score for quality of care deficiency citations, scope-severity weighted	5.9	8.0	8.0	8.0	10.5	12.6	9.2	9.3	8.5	9.9
	(8.0)	(8.3)	(7.9)	(7.9)	(10.0)	(21.1)	(13.1)	(12.8)	(9.3)	(16.8)
Health inspection score for quality of life deficiency citations, scope-severity weighted	2.1	2.7	4.0	4.4	3.2	2.4	2.1	3.1	4.2	2.9
	(5.6)	(3.8)	(4.2)	(4.0)	(4.3)	(5.8)	(3.3)	(5.8)	(5.5)	(4.5)
Percentage with any severe (Grade G+) deficiency	5.3	10.5	10.5	5.3	15.8	18.4	7.9	7.9	7.9	10.5
N (Facilities)	19	19	19	19	19	38	38	38	38	38

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

ECCP = Enhanced Care and Coordination Providers; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide.

[a] The average HPRD is improbably high, driven by three outlier facilities in 2011. The three facilities are owned by the same organization. All of them reported having two residents in 2011 but their resident census jumped to over 100 in 2012 and 2013. Thus, in 2011 their high staffing HPRD resulted from having an extremely small number of residents in the denominator. Available information shows that all three facilities are new, which opened in 2011. They possibly first filled in with full staffing and later with residents.

SOURCE: RTI analysis of CASPER data (RTI program: av08/nhpah252).

Table C.3
Facility-level staffing and quality indicators: Means (standard deviations) or percentages, Missouri

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Total RN hours per resident day	0.27	0.28	0.34	0.37	0.37	0.23	0.21	0.24	0.26	0.30
	(0.13)	(0.12)	(0.18)	(0.17)	(0.11)	(0.14)	(0.12)	(0.13)	(0.19)	(0.16)
Total LPN hours per resident day	0.57	0.59	0.68	0.59	0.63	0.66	0.63	0.71	0.68	0.69
	(0.15)	(0.14)	(0.23)	(0.18)	(0.17)	(0.19)	(0.19)	(0.25)	(0.24)	(0.31)
Total CNA hours per resident day	2.07	2.20	2.57	2.30	2.16	2.05	2.01	2.04	1.98	2.01
	(0.26)	(0.46)	(0.78)	(0.37)	(0.45)	(0.40)	(0.42)	(0.36)	(0.37)	(0.46)
Health inspection score, scope-severity weighted	32.0	29.0	32.0	30.5	29.8	30.8	31.9	38.1	30.6	37.6
	(17.5)	(22.5)	(16.9)	(24.0)	(22.7)	(18.1)	(22.3)	(31.7)	(28.8)	(35.9)
Health inspection score for quality of care deficiency citations, scope-severity weighted	9.3	8.3	8.8	8.0	8.5	9.4	10.1	11.6	8.6	10.4
	(10.8)	(9.8)	(8.5)	(7.6)	(7.3)	(9.3)	(11.8)	(12.4)	(10.0)	(14.4)
Health inspection score for quality of life deficiency citations, scope-severity weighted	1.8	2.5	3.5	2.8	2.8	2.1	2.9	2.4	2.5	4.5
	(3.6)	(4.1)	(4.4)	(3.2)	(5.0)	(3.5)	(4.7)	(4.2)	(4.6)	(5.8)
Percentage with any severe (Grade G+) deficiency	6.3	6.3	0.0	6.3	0.0	9.4	12.5	9.4	3.1	3.1
N (Facilities)	16	16	16	16	16	32	32	32	32	32

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

ECCP = Enhanced Care and Coordination Providers; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide.

SOURCE: RTI analysis of CASPER data (RTI program: av08/nhpah252).

Table C.4
Facility-level staffing and quality indicators: Means (standard deviations) or percentages, Nebraska

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Total RN hours per resident day	0.35	0.39	0.43	0.46	0.44	0.52	0.53	0.55	0.56	0.53
	(0.17)	(0.17)	(0.20)	(0.26)	(0.23)	(0.41)	(0.41)	(0.37)	(0.48)	(0.30)
Total LPN hours per resident day	0.84	0.87	0.81	0.80	0.84	0.85	0.90	0.87	0.81	0.75
	(0.29)	(0.29)	(0.25)	(0.17)	(0.22)	(0.60)	(0.63)	(0.54)	(0.55)	(0.57)
Total CNA hours per resident day	2.05	2.12	2.00	2.20	2.20	1.99	1.96	1.99	1.90	1.88
	(0.38)	(0.29)	(0.35)	(0.37)	(0.54)	(0.82)	(0.87)	(0.82)	(1.00)	(0.80)
Health inspection score, scope-severity weighted	66.4	85.1	59.5	56.3	48.0	48.4	39.2	38.9	38.3	34.1
	(41.3)	(77.9)	(52.2)	(45.8)	(22.7)	(40.4)	(36.9)	(34.0)	(29.3)	(24.9)
Health inspection score for quality of care deficiency citations, scope-severity weighted	16.8	23.7	18.7	14.9	14.3	12.3	8.7	10.8	10.1	7.9
	(15.9)	(33.7)	(20.8)	(15.9)	(17.2)	(13.2)	(10.0)	(18.7)	(14.5)	(6.6)
Health inspection score for quality of life deficiency citations, scope-severity weighted	8.8	6.7	7.2	9.1	3.7	4.8	5.2	5.3	6.1	6.5
	(6.1)	(5.4)	(5.1)	(6.3)	(4.0)	(6.1)	(5.2)	(5.4)	(4.5)	(7.9)
Percentage with any severe (Grade G+) deficiency	20.0	20.0	20.0	13.3	21.4	13.3	3.3	10.0	13.8	3.4
N (Facilities)	15	15	15	15	14	30	30	30	29	29

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

ECCP = Enhanced Care and Coordination Providers; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide.

SOURCE: RTI analysis of CASPER data (RTI program: av08/nhpah252).

Table C.5
Facility-level staffing and quality indicators: Means (standard deviations) or percentages, Nevada

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Total RN hours per resident day	0.50	0.59	0.69	0.63	0.59	0.84	0.82	0.94	0.94	1.05
	(0.24)	(0.31)	(0.32)	(0.26)	(0.27)	(0.57)	(0.64)	(0.77)	(0.74)	(0.95)
Total LPN hours per resident day	0.64	0.65	0.65	0.80	0.78	0.83	0.87	0.94	0.83	0.97
	(0.27)	(0.29)	(0.25)	(0.46)	(0.37)	(0.42)	(0.43)	(0.46)	(0.35)	(0.66)
Total CNA hours per resident day	1.53	1.85	2.04	1.95	2.03	1.97	2.08	2.05	2.25	2.24
	(1.02)	(0.93)	(0.72)	(0.95)	(0.64)	(1.24)	(1.04)	(0.97)	(0.68)	(1.02)
Health inspection score, scope-severity weighted	48.6	59.4	79.6	66.0	38.5	49.0	40.8	48.6	49.4	44.2
	(29.5)	(34.4)	(48.5)	(54.1)	(19.5)	(30.1)	(26.3)	(27.1)	(32.2)	(29.4)
Health inspection score for quality of care deficiency citations, scope-severity weighted	14.4	12.7	19.3	20.3	13.7	14.5	11.4	13.1	16.2	17.9
	(17.1)	(11.1)	(17.8)	(16.2)	(10.7)	(15.9)	(11.5)	(11.0)	(13.6)	(12.6)
Health inspection score for quality of life deficiency citations, scope-severity weighted	5.7	3.8	8.2	6.5	2.5	5.0	2.9	4.6	5.9	2.9
	(6.7)	(3.6)	(9.9)	(9.3)	(3.5)	(4.5)	(4.6)	(5.4)	(6.2)	(5.6)
Percentage with any severe (Grade G+) deficiency	16.7	12.5	20.8	29.2	4.2	19.0	14.3	9.5	15.8	26.3
N (Facilities)	24	24	24	24	24	21	21	21	19	19

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

ECCP = Enhanced Care and Coordination Providers; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide.

SOURCE: RTI analysis of CASPER data (RTI program: av08/nhpah252).

Table C.6
Facility-level staffing and quality indicators: Means (standard deviations) or percentages, New York

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Total RN hours per resident day	0.72	0.57	0.59	1.23 [a]	0.55	0.47	0.47	0.50	0.55	0.52
	(0.81)	(0.27)	(0.31)	(3.33)	(0.29)	(0.26)	(0.25)	(0.29)	(0.30)	(0.29)
Total LPN hours per resident day	0.79	0.67	0.66	1.27 [a]	0.78	0.66	0.68	0.70	0.71	0.73
	(0.81)	(0.30)	(0.27)	(2.87)	(0.62)	(0.27)	(0.27)	(0.30)	(0.33)	(0.34)
Total CNA hours per resident day	2.61	2.26	2.40	2.89 [a]	2.11	2.33	2.35	2.56	2.41	2.50
	(2.01)	(0.56)	(0.55)	(4.03)	(0.54)	(0.57)	(0.62)	(2.24)	(0.68)	(1.08)
Health inspection score, scope-severity weighted	18.9	15.6	27.7	11.5	14.3	28.1	18.2	16.3	15.2	12.5
	(19.1)	(14.2)	(58.6)	(12.5)	(15.8)	(95.7)	(15.4)	(18.7)	(23.7)	(14.8)
Health inspection score for quality of care deficiency citations, scope-severity weighted	3.5	2.9	7.5	2.4	3.4	6.9	3.3	2.7	4.1	2.1
	(5.0)	(3.3)	(19.9)	(4.1)	(5.9)	(26.3)	(4.7)	(4.0)	(9.3)	(3.1)
Health inspection score for quality of life deficiency citations, scope-severity weighted	3.9	2.4	2.5	1.7	2.1	4.3	1.8	2.7	1.7	1.2
	(5.9)	(4.0)	(3.7)	(4.5)	(3.8)	(13.7)	(3.9)	(5.4)	(4.0)	(3.1)
Percentage with any severe (Grade G+) deficiency	0.0	0.0	3.3	0.0	3.4	3.3	3.3	0.0	5.0	0.0
N (Facilities)	30	30	30	30	29	60	60	60	60	60

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

ECCP = Enhanced Care and Coordination Providers; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide.

[a] The sudden hike in average staffing HPRD appears to be caused by one outlier, Rivington House. The resident census in this facility dropped abruptly from 163 in 2013 to just 2 residents in 2014 before the facility eventually closed in November 2014. Meanwhile, the facility still maintained 7.5 FTE RNs (down from 17 in 2013), 6 FTE LPNs (down from 15 in 2013), and 13 FTE CNAs (down from 59 in 2013). The substantial staff still available for just two residents translated into improbably high staffing levels in this facility right before its closure. This resulted in the substantial increase in ECCP-wide facility average staffing HPRD in 2014. SOURCE: RTI analysis of CASPER data (RTI program: av08/nhpah252).

Table C.7
Facility-level staffing and quality indicators: Means (standard deviations) or percentages, Pennsylvania

Characteristic	ECCP					Comparison				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Total RN hours per resident day	0.42	0.44	0.47	0.44	0.46	0.43	0.43	0.46	0.48	0.48
	(0.13)	(0.11)	(0.15)	(0.19)	(0.12)	(0.19)	(0.18)	(0.21)	(0.22)	(0.24)
Total LPN hours per resident day	0.91	0.82	1.02	0.76	0.87	0.87	0.83	0.88	0.87	0.87
	(0.34)	(0.26)	(1.16)	(0.23)	(0.32)	(0.20)	(0.18)	(0.25)	(0.23)	(0.24)
Total CNA hours per resident day	1.89	1.98	2.07	1.82	1.90	2.10	2.13	2.16	2.18	2.14
	(0.89)	(0.57)	(0.29)	(0.65)	(0.75)	(0.58)	(0.53)	(0.40)	(0.48)	(0.42)
Health inspection score, scope-severity weighted	20.8	24.2	20.6	42.5	47.4	23.7	24.6	24.4	28.4	41.2
	(17.9)	(17.4)	(18.0)	(40.9)	(47.2)	(18.7)	(23.4)	(20.4)	(25.6)	(35.8)
Health inspection score for quality of care deficiency citations, scope-severity weighted	5.9	5.5	4.6	12.2	13.7	8.5	6.9	7.5	10.5	10.4
	(6.8)	(6.1)	(5.9)	(11.0)	(25.1)	(9.5)	(9.1)	(8.1)	(16.9)	(16.1)
Health inspection score for quality of life deficiency citations, scope-severity weighted	2.3	0.8	2.9	3.4	6.7	2.6	2.0	2.7	2.3	3.9
	(3.8)	(2.1)	(3.7)	(4.5)	(7.8)	(4.0)	(4.0)	(4.7)	(4.1)	(5.6)
Percentage with any severe (Grade G+) deficiency	5.3	0.0	0.0	5.3	10.5	13.2	5.3	0.0	5.3	10.5
N (Facilities)	19	19	19	19	19	38	38	38	38	38

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

ECCP = Enhanced Care and Coordination Providers; RN = Registered Nurse; LPN = Licensed Practical Nurse; CNA = Certified Nurse Aide.

SOURCE: RTI analysis of CASPER data (RTI program: av08/nhpah252).

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APPENDIX D
COMPLETE MULTIVARIATE REGRESSION RESULTS OF SELECTED MODELS

Because of space constraints, in the regression tables presented in the appendix tables detailing complete regression model results, we list the HCC numbers only (e.g., HCC 38) without showing their labels. For interested readers, we provide fully specified HCC labels along with HCC numbers, in ***Appendix Table D.1***.

Appendix Tables D.2, D.3, and D.4 shows parameter estimates from the complete models of selected outcomes, including: the probability of having any potentially avoidable hospitalization, the count of potentially avoidable hospitalizations, Medicare expenditure for potentially avoidable hospitalizations (two-part model, both stages displayed), and the percent of observed quarters per resident indicating the use of antipsychotic medications. These illustrate all the types of models used in this report: logistic models of the probability of utilization, negative binomial models of utilization counts, two-part models of expenditure, and generalized linear models of quality outcomes. For illustration, we use the data from one state, Indiana, to run these models.

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Table D.1
Medicare hierarchical condition categories (HCCs) used in regression models

HCC or HCC groupings	Description
HCC 1	HIV/AIDS
HCC 2	Septicemia/shock
HCC 7-10	Cancers
HCC 15, 16, 18	Diabetes with complications
HCC 19	Diabetes without complications
HCC 25-27	Liver problems
HCC 31	Intestinal obstruction/perforation
HCC 32	Pancreatic disease
HCC 33	Inflammatory bowel disease
HCC 37	Bone/joint/muscle infections/necrosis
HCC 38	Rheumatoid arthritis and inflammatory connective tissue disease
HCC 44	Severe hematological disorders
HCC 45	Disorders of immunity
HCC 54	Schizophrenia
HCC 55	Major depressive, bipolar, and paranoid disorders
HCC 67, 68, 101	Paraplegia, quadriplegia, other extensive paralysis, cerebral palsy, and other paralytic syndromes
HCC 69	Spinal cord disorders/injuries
HCC 72	Multiple sclerosis
HCC 74	Seizure disorders and convulsions
HCC 75	Coma, brain compression/anoxic damage
HCC 77	Respirator dependence/tracheostomy status
HCC 79	Cardio-respiratory failure and shock
HCC 80	Congestive heart failure
HCC 81	Acute myocardial infarction
HCC 82	Unstable angina and other acute ischemic heart disease
HCC 83	Angina pectoris/old myocardial infarction
HCC 92	Specified heart arrhythmias
HCC 96	Ischemic or unspecified stroke
HCC 104, 105	Vascular disease with complications

(continued)

Table D.1 (continued)
Medicare hierarchical condition categories (HCCs) used in regression models

HCC or HCC groupings	Description
HCC 108	COPD
HCC 111, 112	Aspiration and specified bacterial pneumonias, pneumococcal pneumonia, Empyema, and Lung Abscess
HCC 119	Proliferative diabetic retinopathy and vitreous hemorrhage
HCC 130	Dialysis status
HCC 131	Renal failure
HCC 148	Decubitus ulcer of skin
HCC 149	Chronic ulcer of skin, except decubitus
HCC 157	Vertebral fractures without spinal cord injury
HCC 158	Hip fracture/dislocation
HCC 164	Major complications of medical care and trauma
HCC 176	Artificial openings for feeding or elimination

Table D.2
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
ECCP	0.127	0.151	*0.399*	0.067	0.125	*0.593*
ECCP * Year 11	-0.243	0.121	*0.045*	-0.163	0.100	*0.102*
ECCP * Year 13	-0.122	0.130	*0.347*	-0.084	0.114	*0.461*
ECCP * Year 14	-0.338	0.124	*0.006*	-0.366	0.110	*0.001*
ECCP * Year 15	-0.424	0.165	*0.010*	-0.425	0.148	*0.004*
Year 11	-0.062	0.581	*0.915*	0.200	0.505	*0.692*
Year 13	-0.870	0.862	*0.313*	-1.037	0.799	*0.194*
Year 14	-0.481	0.666	*0.471*	-0.745	0.659	*0.258*
Year 15	0.380	0.622	*0.541*	0.451	0.619	*0.466*
Exposure (Initiative-related days)[1]	0.000	0.003	*0.877*	0.194	0.043	*0.000*
Eligible due to no discharge plan (likely short-stay)	-1.152	0.154	*0.000*	-1.055	0.223	*0.000*
Exposure (Initiative-related days) * Eligible due to no discharge plan	0.091	0.014	*0.000*	0.458	0.095	*0.000*
Dual eligible (any episode month)	-0.078	0.085	*0.357*	-0.143	0.083	*0.087*
MA plan (any episode month)	-0.238	0.203	*0.241*	-0.335	0.177	*0.059*
Male, < 65	-0.087	0.220	*0.693*	-0.025	0.176	*0.887*
Male, 65-69	0.070	0.282	*0.804*	0.033	0.239	*0.891*
Male, 70-74	-0.094	0.254	*0.712*	-0.202	0.236	*0.393*
Male, 75-79	-0.201	0.201	*0.317*	-0.206	0.169	*0.224*
Male, 80-84	-0.180	0.227	*0.428*	-0.205	0.176	*0.242*
Male, 85-89	-0.134	0.230	*0.560*	-0.152	0.180	*0.397*
Male, 90-94	-0.104	0.226	*0.644*	-0.165	0.219	*0.451*
Male, 95+	0.051	0.389	*0.895*	-0.174	0.356	*0.625*
Female, < 65	-0.377	0.231	*0.102*	-0.411	0.237	*0.083*
Female, 70-74	-0.435	0.192	*0.024*	-0.394	0.176	*0.025*
Female, 75-79	-0.206	0.172	*0.230*	-0.325	0.156	*0.038*
Female, 80-84	-0.087	0.186	*0.640*	-0.154	0.171	*0.368*
Female, 85-89	-0.257	0.189	*0.175*	-0.387	0.162	*0.017*
Female, 90-94	-0.175	0.185	*0.345*	-0.294	0.178	*0.098*
Female, 95+	-0.193	0.223	*0.387*	-0.305	0.210	*0.146*
Black, non-Hispanic	-0.018	0.122	*0.885*	0.057	0.103	*0.582*
Other race/ethnicity	0.029	0.151	*0.849*	0.068	0.150	*0.652*
Dementia	-0.206	0.073	*0.005*	-0.231	0.071	*0.001*
Anemia	0.147	0.079	*0.062*	0.156	0.065	*0.017*
Body Mass Index (BMI)	0.001	0.005	*0.837*	0.000	0.005	*0.964*
ADL Score	0.003	0.007	*0.701*	0.005	0.006	*0.416*
Any hospice use in 2 months before episode period[2]	-1.328	0.228	*0.000*	-1.345	0.213	*0.000*
HCC 1[3]	0.470	0.272	*0.084*	0.273	0.240	*0.255*
HCC 2	0.168	0.143	*0.241*	0.217	0.114	*0.057*
HCC 7-10	0.000	0.120	*0.999*	0.010	0.117	*0.933*
HCC 15, 16, 18	0.280	0.072	*0.000*	0.206	0.063	*0.001*
HCC 19	0.138	0.082	*0.092*	0.104	0.074	*0.162*
HCC 25-27	0.153	0.254	*0.548*	0.243	0.208	*0.244*

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Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
HCC 31	0.088	0.192	*0.649*	0.029	0.176	*0.868*
HCC 32	0.192	0.186	*0.303*	0.202	0.171	*0.237*
HCC 33	0.481	0.286	*0.092*	0.419	0.210	*0.046*
HCC 37	0.096	0.177	*0.588*	-0.001	0.145	*0.995*
HCC 38	0.074	0.131	*0.574*	0.027	0.120	*0.819*
HCC 44	-0.200	0.262	*0.446*	-0.028	0.253	*0.912*
HCC 45	0.227	0.280	*0.418*	0.191	0.249	*0.442*
HCC 54	0.061	0.162	*0.706*	0.053	0.154	*0.729*
HCC 55	-0.039	0.095	*0.679*	-0.016	0.088	*0.854*
HCC 67, 68, 101	-0.197	0.199	*0.321*	-0.059	0.166	*0.722*
HCC 69	-0.325	0.379	*0.392*	-0.162	0.359	*0.652*
HCC 72	-0.555	0.345	*0.107*	-0.454	0.345	*0.189*
HCC 74	0.034	0.108	*0.750*	0.045	0.095	*0.635*
HCC 75	0.127	0.259	*0.624*	0.218	0.236	*0.355*
HCC 77	-0.175	0.283	*0.537*	-0.006	0.260	*0.981*
HCC 79	0.228	0.117	*0.052*	0.232	0.100	*0.020*
HCC 80	0.306	0.067	*0.000*	0.337	0.059	*0.000*
HCC 81	0.419	0.171	*0.015*	0.288	0.141	*0.040*
HCC 82	-0.024	0.216	*0.912*	0.078	0.184	*0.672*
HCC 83	0.001	0.138	*0.995*	0.056	0.132	*0.673*
HCC 92	0.055	0.068	*0.418*	0.045	0.058	*0.435*
HCC 96	0.001	0.089	*0.995*	-0.057	0.087	*0.514*
HCC 104, 105	-0.137	0.072	*0.058*	-0.180	0.071	*0.012*
HCC 108	0.291	0.081	*0.000*	0.296	0.063	*0.000*
HCC 111, 112	-0.018	0.156	*0.910*	-0.060	0.140	*0.668*
HCC 119	0.345	0.259	*0.182*	0.335	0.259	*0.195*
HCC 130	0.174	0.256	*0.496*	0.226	0.247	*0.360*
HCC 131	0.295	0.063	*0.000*	0.302	0.067	*0.000*
HCC 148	0.113	0.072	*0.116*	0.106	0.073	*0.144*
HCC 149	-0.227	0.128	*0.075*	-0.113	0.143	*0.429*
HCC 157	0.230	0.178	*0.196*	0.254	0.157	*0.106*
HCC 158	-0.324	0.140	*0.021*	-0.245	0.135	*0.069*
HCC 164	-0.028	0.142	*0.843*	-0.088	0.128	*0.490*
HCC 176	0.438	0.183	*0.017*	0.332	0.160	*0.038*
Any PA/NP in facility	-0.135	0.109	*0.218*	-0.073	0.088	*0.410*
RN staffing HPRD	-0.024	0.011	*0.021*	-0.018	0.009	*0.034*
LPN staffing HPRD	-0.004	0.014	*0.799*	-0.004	0.011	*0.702*
CNA staffing HPRD	-0.017	0.025	*0.492*	-0.003	0.019	*0.892*
For-profit	0.135	0.095	*0.156*	0.114	0.080	*0.156*
Chain	-0.100	0.115	*0.387*	-0.087	0.093	*0.354*
Percent Medicaid residents	-0.001	0.005	*0.843*	0.002	0.004	*0.687*
Percent Medicare residents	-0.006	0.007	*0.375*	-0.001	0.006	*0.812*
Percent residents with advanced directives	0.001	0.001	*0.344*	0.001	0.001	*0.442*
Alzheimer's unit in facility	0.000	0.125	*0.998*	-0.036	0.112	*0.750*

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Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * Exposure (Initiative-related days) [1]	0.002	0.004	*0.710*	0.018	0.057	*0.756*
YR13 * Exposure (Initiative-related days) [1]	-0.004	0.004	*0.298*	-0.073	0.050	*0.142*
YR14 * Exposure (Initiative-related days) [1]	0.004	0.005	*0.344*	0.016	0.067	*0.817*
YR15 * Exposure (Initiative-related days) [1]	-0.005	0.005	*0.257*	-0.142	0.063	*0.025*
YR11 * Eligible due to no discharge plan (likely short-stay)	-0.216	0.258	*0.402*	0.214	0.357	*0.549*
YR13 * Eligible due to no discharge plan (likely short-stay)	0.190	0.205	*0.354*	0.255	0.271	*0.347*
YR14 * Eligible due to no discharge plan (likely short-stay)	0.289	0.206	*0.162*	0.396	0.312	*0.204*
YR15 * Eligible due to no discharge plan (likely short-stay)	-0.060	0.231	*0.793*	-0.460	0.378	*0.224*
YR11 * Eligible due to no discharge plan	-0.002	0.025	*0.942*	-0.290	0.167	*0.082*
YR13 * Eligible due to no discharge plan	0.002	0.028	*0.931*	-0.093	0.156	*0.551*
YR14 * Eligible due to no discharge plan	0.000	0.023	*0.995*	-0.103	0.150	*0.494*
YR15 * Eligible due to no discharge plan	0.002	0.019	*0.914*	0.179	0.179	*0.318*
YR11 * Dual eligible (any episode month)	0.038	0.106	*0.718*	0.049	0.098	*0.618*
YR13 * Dual eligible (any episode month)	0.121	0.115	*0.293*	0.083	0.099	*0.401*
YR14 * Dual eligible (any episode month)	0.061	0.122	*0.617*	0.123	0.125	*0.325*
YR 15* Dual eligible (any episode month)	0.142	0.117	*0.227*	0.124	0.110	*0.263*
YR11 * MA plan (any episode month)	0.436	0.262	*0.096*	0.360	0.220	*0.101*
YR13 * MA plan (any episode month)	-0.162	0.309	*0.601*	-0.120	0.269	*0.656*
YR14 * MA plan (any episode month)	-0.458	0.352	*0.193*	-0.057	0.344	*0.868*
YR15 * MA plan (any episode month)	-0.467	0.320	*0.144*	-0.416	0.284	*0.143*
YR11 * Male, < 65	-0.362	0.344	*0.294*	-0.076	0.311	*0.808*
YR13 * Male, < 65	0.448	0.283	*0.114*	0.374	0.263	*0.156*
YR14 * Male, < 65	0.324	0.265	*0.223*	0.307	0.276	*0.267*
YR15 * Male, < 65	-0.345	0.320	*0.281*	-0.295	0.283	*0.297*
YR11 * Male, 65-69	-0.023	0.343	*0.946*	0.014	0.315	*0.965*
YR13 * Male, 65-69	0.044	0.392	*0.911*	0.033	0.363	*0.927*
YR14 * Male, 65-69	0.092	0.378	*0.807*	0.028	0.323	*0.930*
YR15 * Male, 65-69	-0.231	0.362	*0.524*	-0.051	0.311	*0.870*
YR11 * Male, 70-74	-0.016	0.323	*0.961*	0.172	0.287	*0.549*
YR13 * Male, 70-74	0.422	0.390	*0.280*	0.386	0.369	*0.295*
YR14 * Male, 70-74	0.382	0.353	*0.279*	0.452	0.301	*0.133*
YR15 * Male, 70-74	-0.382	0.334	*0.253*	-0.246	0.304	*0.419*
YR11 * Male, 75-79	0.349	0.264	*0.186*	0.310	0.257	*0.228*
YR13 * Male, 75-79	0.742	0.376	*0.049*	0.467	0.298	*0.117*
YR14 * Male, 75-79	0.238	0.303	*0.432*	-0.122	0.300	*0.685*
YR15 * Male, 75-79	-0.251	0.325	*0.440*	-0.206	0.276	*0.456*
YR11 * Male, 80-84	0.288	0.293	*0.325*	-0.026	0.330	*0.938*
YR13 * Male, 80-84	0.467	0.342	*0.172*	0.667	0.359	*0.063*
YR14 * Male, 80-84	-0.171	0.327	*0.602*	0.395	0.374	*0.291*
YR15 * Male, 80-84	-0.278	0.304	*0.361*	0.171	0.290	*0.557*

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Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * Male, 85-89	0.134	0.277	*0.629*	0.107	0.245	*0.661*
YR13 * Male, 85-89	0.897	0.361	*0.013*	0.846	0.308	*0.006*
YR14 * Male, 85-89	0.327	0.316	*0.301*	0.396	0.301	*0.188*
YR15 * Male, 85-89	-0.132	0.353	*0.708*	-0.010	0.327	*0.976*
YR11 * Male, 90-94	0.026	0.327	*0.936*	0.327	0.257	*0.203*
YR13 * Male, 90-94	0.705	0.369	*0.056*	0.685	0.343	*0.046*
YR14 * Male, 90-94	0.314	0.336	*0.351*	0.357	0.255	*0.161*
YR15 * Male, 90-94	0.086	0.299	*0.774*	-0.196	0.302	*0.517*
YR11 * Male, 95+	-0.141	0.540	*0.794*	0.065	0.427	*0.879*
YR13 * Male, 95+	0.058	0.659	*0.930*	0.317	0.587	*0.589*
YR14 * Male, 95+	-1.410	0.861	*0.102*	-1.196	0.893	*0.180*
YR15 * Male, 95+	-0.468	0.644	*0.468*	-0.337	0.571	*0.556*
YR11 * Female, < 65	0.338	0.300	*0.260*	0.491	0.321	*0.127*
YR13 * Female, < 65	0.688	0.361	*0.057*	0.740	0.348	*0.034*
YR14 * Female, < 65	0.415	0.309	*0.179*	0.675	0.298	*0.024*
YR15 * Female, < 65	0.521	0.247	*0.035*	0.582	0.269	*0.031*
YR11 * Female, 70-74	0.188	0.261	*0.471*	0.216	0.240	*0.370*
YR13 * Female, 70-74	0.622	0.312	*0.046*	0.499	0.290	*0.085*
YR14 * Female, 70-74	0.665	0.288	*0.021*	0.651	0.301	*0.031*
YR15 * Female, 70-74	0.310	0.273	*0.256*	0.300	0.248	*0.227*
YR11 * Female, 75-79	0.059	0.250	*0.813*	0.167	0.233	*0.475*
YR13 * Female, 75-79	0.595	0.258	*0.021*	0.664	0.271	*0.014*
YR14 * Female, 75-79	0.165	0.307	*0.591*	0.283	0.264	*0.284*
YR15 * Female, 75-79	-0.092	0.291	*0.751*	0.056	0.257	*0.829*
YR11 * Female, 80-84	-0.092	0.262	*0.727*	0.063	0.257	*0.807*
YR13 * Female, 80-84	0.586	0.282	*0.038*	0.600	0.275	*0.029*
YR14 * Female, 80-84	0.048	0.245	*0.844*	0.140	0.266	*0.598*
YR15 * Female, 80-84	-0.087	0.272	*0.748*	-0.101	0.256	*0.694*
YR11 * Female, 85-89	0.170	0.246	*0.489*	0.352	0.244	*0.148*
YR13 * Female, 85-89	0.927	0.300	*0.002*	1.000	0.282	*0.000*
YR14 * Female, 85-89	0.232	0.264	*0.380*	0.417	0.267	*0.118*
YR15 * Female, 85-89	-0.131	0.262	*0.618*	0.027	0.251	*0.914*
YR11 * Female, 90-94	0.033	0.254	*0.897*	0.168	0.259	*0.517*
YR13 * Female, 90-94	0.716	0.299	*0.017*	0.724	0.310	*0.020*
YR14 * Female, 90-94	-0.033	0.261	*0.901*	0.054	0.270	*0.842*
YR15 * Female, 90-94	-0.222	0.289	*0.441*	-0.082	0.256	*0.749*
YR11 * Female, 95+	-0.048	0.287	*0.867*	0.090	0.314	*0.775*
YR13 * Female, 95+	0.565	0.327	*0.084*	0.600	0.319	*0.060*
YR14 * Female, 95+	0.035	0.296	*0.907*	0.166	0.295	*0.575*
YR15 * Female, 95+	-0.416	0.336	*0.215*	-0.247	0.299	*0.409*
YR11 * Black, non-Hispanic	0.067	0.165	*0.687*	-0.010	0.137	*0.944*
YR13 * Black, non-Hispanic	0.246	0.163	*0.131*	0.142	0.143	*0.320*
YR14 * Black, non-Hispanic	0.049	0.157	*0.754*	0.063	0.126	*0.616*
YR15 * Black, non-Hispanic	0.072	0.160	*0.651*	0.068	0.149	*0.650*

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Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * Other race/ethnicity	0.093	0.302	*0.759*	0.066	0.265	*0.802*
YR13 * Other race/ethnicity	-0.103	0.269	*0.702*	-0.105	0.262	*0.687*
YR14 * Other race/ethnicity	-0.164	0.162	*0.311*	-0.033	0.192	*0.863*
YR15 * Other race/ethnicity	-0.303	0.271	*0.264*	-0.280	0.263	*0.287*
YR11 * Dementia	0.007	0.107	*0.945*	0.015	0.096	*0.875*
YR13 * Dementia	-0.057	0.110	*0.607*	-0.020	0.106	*0.851*
YR14 * Dementia	0.184	0.105	*0.079*	0.194	0.110	*0.077*
YR15 * Dementia	0.183	0.121	*0.131*	0.174	0.109	*0.111*
YR11 * Anemia	-0.089	0.109	*0.414*	-0.117	0.089	*0.190*
YR13 * Anemia	0.055	0.111	*0.618*	0.010	0.095	*0.918*
YR14 * Anemia	0.042	0.119	*0.722*	0.030	0.104	*0.774*
YR15 * Anemia	-0.031	0.128	*0.807*	-0.043	0.108	*0.690*
YR11 * Body Mass Index (BMI)	0.000	0.008	*0.968*	0.001	0.007	*0.943*
YR13 * Body Mass Index (BMI)	0.004	0.007	*0.601*	0.007	0.007	*0.296*
YR14 * Body Mass Index (BMI)	-0.002	0.008	*0.807*	0.002	0.008	*0.831*
YR15 * Body Mass Index (BMI)	-0.006	0.008	*0.445*	-0.004	0.007	*0.554*
YR11 * ADL Score	0.012	0.009	*0.214*	0.004	0.009	*0.609*
YR13 * ADL Score	0.000	0.010	*0.963*	0.005	0.009	*0.577*
YR14 * ADL Score	0.013	0.009	*0.151*	0.017	0.008	*0.045*
YR15 * ADL Score	-0.008	0.012	*0.514*	-0.005	0.010	*0.588*
YR11 * Any hospice use in 2 months before episode period	-0.181	0.351	*0.606*	0.012	0.332	*0.971*
YR13 * Any hospice use in 2 months before episode period	0.172	0.343	*0.615*	0.397	0.341	*0.244*
YR14 * Any hospice use in 2 months before episode period	0.314	0.262	*0.232*	0.489	0.260	*0.060*
YR15 * Any hospice use in 2 months before episode period	-0.194	0.328	*0.554*	0.339	0.344	*0.324*
YR11 * HCC 2	0.148	0.216	*0.493*	0.087	0.194	*0.653*
YR13 * HCC 2	-0.040	0.170	*0.816*	-0.105	0.145	*0.467*
YR14 * HCC 2	-0.094	0.195	*0.629*	-0.161	0.163	*0.325*
YR15 * HCC 2	-0.090	0.160	*0.573*	-0.140	0.149	*0.348*
YR11 * HCC 7-10	0.109	0.145	*0.453*	0.062	0.128	*0.626*
YR13 * HCC 7-10	-0.156	0.160	*0.327*	-0.159	0.140	*0.256*
YR14 * HCC 7-10	0.168	0.171	*0.327*	0.215	0.145	*0.138*
YR15 * HCC 7-10	0.097	0.163	*0.554*	0.108	0.143	*0.451*
YR11 * HCC 15, 16, 18	-0.119	0.130	*0.361*	0.023	0.119	*0.844*
YR13 * HCC 15, 16, 18	-0.044	0.108	*0.686*	-0.024	0.098	*0.808*
YR14 * HCC 15, 16, 18	-0.161	0.129	*0.212*	-0.076	0.121	*0.530*
YR15 * HCC 15, 16, 18	-0.007	0.122	*0.956*	0.080	0.116	*0.494*
YR11 * HCC 19	-0.166	0.120	*0.168*	-0.097	0.115	*0.396*
YR13 * HCC 19	-0.255	0.130	*0.050*	-0.233	0.134	*0.083*
YR14 * HCC 19	-0.103	0.136	*0.451*	-0.050	0.122	*0.681*
YR15 * HCC 19	0.013	0.139	*0.923*	0.038	0.125	*0.764*

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Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * HCC 25-27	0.171	0.366	*0.640*	0.023	0.292	*0.937*
YR13 * HCC 25-27	-0.577	0.356	*0.105*	-0.453	0.352	*0.199*
YR14 * HCC 25-27	0.180	0.394	*0.648*	0.078	0.393	*0.843*
YR15 * HCC 25-27	-0.525	0.319	*0.100*	-0.675	0.315	*0.032*
YR11 * HCC 31	0.069	0.281	*0.807*	0.090	0.246	*0.715*
YR13 * HCC 31	0.114	0.282	*0.686*	0.078	0.243	*0.750*
YR14 * HCC 31	-0.097	0.281	*0.730*	0.264	0.269	*0.326*
YR15 * HCC 31	-0.195	0.261	*0.455*	-0.002	0.225	*0.993*
YR11 * HCC 32	-0.325	0.323	*0.315*	-0.374	0.285	*0.190*
YR13 * HCC 32	-0.200	0.285	*0.484*	-0.178	0.253	*0.482*
YR14 * HCC 32	-0.093	0.327	*0.776*	-0.126	0.283	*0.656*
YR15 * HCC 32	0.019	0.305	*0.950*	-0.070	0.278	*0.801*
YR11 * HCC 33	-1.027	0.489	*0.036*	-0.728	0.446	*0.103*
YR13 * HCC 33	-0.681	0.491	*0.165*	-0.595	0.455	*0.191*
YR14 * HCC 33	-0.382	0.515	*0.458*	-0.282	0.396	*0.476*
YR15 * HCC 33	-1.028	0.450	*0.023*	-0.794	0.406	*0.050*
YR11 * HCC 37	-0.293	0.298	*0.324*	-0.217	0.240	*0.366*
YR13 * HCC 37	-0.104	0.274	*0.705*	-0.052	0.236	*0.826*
YR14 * HCC 37	-0.022	0.290	*0.939*	0.019	0.238	*0.935*
YR15 * HCC 37	-0.400	0.272	*0.140*	-0.313	0.247	*0.205*
YR11 * HCC 38	0.052	0.187	*0.779*	0.077	0.180	*0.669*
YR13 * HCC 38	-0.118	0.201	*0.557*	-0.091	0.176	*0.605*
YR14 * HCC 38	-0.081	0.238	*0.735*	-0.150	0.205	*0.465*
YR15 * HCC 38	0.086	0.235	*0.714*	0.172	0.214	*0.421*
YR11 * HCC 44	0.716	0.346	*0.039*	0.412	0.276	*0.135*
YR13 * HCC 44	0.613	0.389	*0.115*	0.264	0.320	*0.409*
YR14 * HCC 44	0.462	0.431	*0.284*	0.285	0.364	*0.433*
YR15 * HCC 44	0.362	0.509	*0.477*	0.116	0.420	*0.782*
YR11 * HCC 45	-0.411	0.363	*0.258*	-0.306	0.287	*0.285*
YR13 * HCC 45	-0.328	0.382	*0.391*	-0.093	0.370	*0.802*
YR14 * HCC 45	-0.210	0.309	*0.497*	-0.210	0.264	*0.427*
YR15 * HCC 45	0.155	0.373	*0.678*	0.025	0.349	*0.943*
YR11 * HCC 54	-0.441	0.264	*0.094*	-0.499	0.234	*0.032*
YR13 * HCC 54	-0.075	0.312	*0.809*	-0.095	0.261	*0.715*
YR14 * HCC 54	-0.215	0.233	*0.357*	-0.140	0.244	*0.565*
YR15 * HCC 54	-0.215	0.278	*0.440*	-0.207	0.235	*0.380*
YR11 * HCC 55	0.228	0.125	*0.068*	0.126	0.108	*0.243*
YR13 * HCC 55	0.207	0.132	*0.116*	0.106	0.129	*0.410*
YR14 * HCC 55	0.124	0.112	*0.271*	0.089	0.104	*0.392*
YR15 * HCC 55	-0.010	0.128	*0.938*	0.083	0.122	*0.499*
YR11 * HCC 67, 68, 101	0.359	0.262	*0.171*	0.284	0.209	*0.174*
YR13 * HCC 67, 68, 101	0.257	0.243	*0.291*	0.118	0.199	*0.555*
YR14 * HCC 67, 68, 101	-0.118	0.293	*0.687*	-0.043	0.266	*0.872*
YR15 * HCC 67, 68, 101	0.123	0.245	*0.614*	-0.047	0.232	*0.838*

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Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * HCC 69	0.032	0.510	*0.950*	-0.120	0.456	*0.793*
YR13 * HCC 69	0.520	0.529	*0.325*	0.504	0.460	*0.274*
YR14 * HCC 69	-0.111	0.485	*0.819*	-0.189	0.500	*0.705*
YR15 * HCC 69	-0.127	0.527	*0.809*	-0.250	0.471	*0.595*
YR11 * HCC 72	0.313	0.399	*0.432*	0.223	0.430	*0.604*
YR13 * HCC 72	0.453	0.532	*0.395*	0.320	0.517	*0.537*
YR14 * HCC 72	0.297	0.471	*0.528*	0.174	0.456	*0.702*
YR15 * HCC 72	0.086	0.503	*0.864*	-0.070	0.470	*0.882*
YR11 * HCC 74	0.128	0.119	*0.284*	0.060	0.112	*0.590*
YR13 * HCC 74	0.231	0.149	*0.121*	0.116	0.141	*0.410*
YR14 * HCC 74	0.090	0.125	*0.472*	0.072	0.130	*0.579*
YR15 * HCC 74	0.082	0.179	*0.649*	0.093	0.156	*0.553*
YR11 * HCC 75	-0.501	0.583	*0.390*	-0.842	0.467	*0.071*
YR13 * HCC 75	-0.124	0.463	*0.788*	-0.307	0.429	*0.475*
YR14 * HCC 75	-0.233	0.483	*0.630*	-0.442	0.417	*0.289*
YR15 * HCC 75	-0.178	0.484	*0.713*	-0.170	0.429	*0.692*
YR11 * HCC 77	0.958	0.443	*0.031*	0.399	0.355	*0.261*
YR13 * HCC 77	0.015	0.518	*0.977*	0.019	0.469	*0.968*
YR14 * HCC 77	0.502	0.401	*0.211*	0.290	0.320	*0.366*
YR15 * HCC 77	-0.386	0.549	*0.482*	-0.281	0.520	*0.588*
YR11 * HCC 79	0.017	0.151	*0.911*	0.010	0.129	*0.936*
YR13 * HCC 79	0.054	0.158	*0.734*	0.035	0.146	*0.812*
YR14 * HCC 79	0.266	0.139	*0.056*	0.241	0.121	*0.046*
YR15 * HCC 79	0.045	0.153	*0.767*	-0.033	0.133	*0.804*
YR11 * HCC 80	-0.129	0.110	*0.240*	-0.152	0.093	*0.102*
YR13 * HCC 80	-0.122	0.096	*0.207*	-0.078	0.084	*0.352*
YR14 * HCC 80	-0.037	0.099	*0.710*	-0.083	0.085	*0.329*
YR15 * HCC 80	-0.101	0.123	*0.409*	-0.164	0.106	*0.122*
YR11 * HCC 81	-0.576	0.295	*0.051*	-0.343	0.237	*0.148*
YR13 * HCC 81	-0.459	0.269	*0.088*	-0.294	0.234	*0.209*
YR14 * HCC 81	-0.295	0.269	*0.272*	-0.239	0.199	*0.230*
YR15 * HCC 81	-0.320	0.212	*0.132*	-0.169	0.192	*0.380*
YR11 * HCC 82	0.344	0.274	*0.209*	0.200	0.218	*0.357*
YR13 * HCC 82	-0.290	0.347	*0.404*	-0.187	0.293	*0.523*
YR14 * HCC 82	0.192	0.249	*0.440*	0.065	0.237	*0.783*
YR15 * HCC 82	-0.351	0.300	*0.242*	-0.219	0.279	*0.433*
YR11 * HCC 83	0.232	0.186	*0.212*	0.115	0.176	*0.515*
YR13 * HCC 83	0.207	0.195	*0.290*	0.134	0.171	*0.432*
YR14 * HCC 83	-0.014	0.212	*0.947*	-0.052	0.191	*0.786*
YR15 * HCC 83	0.181	0.197	*0.357*	0.189	0.187	*0.314*
YR11 * HCC 92	0.278	0.104	*0.008*	0.284	0.092	*0.002*
YR13 * HCC 92	0.063	0.118	*0.595*	0.037	0.098	*0.710*
YR14 * HCC 92	0.150	0.120	*0.209*	0.210	0.103	*0.041*
YR15 * HCC 92	0.034	0.128	*0.789*	0.062	0.108	*0.568*

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Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * HCC 96	0.066	0.123	*0.591*	0.017	0.111	*0.878*
YR13 * HCC 96	0.183	0.127	*0.148*	0.203	0.111	*0.069*
YR14 * HCC 96	-0.062	0.151	*0.681*	-0.016	0.138	*0.906*
YR15 * HCC 96	-0.157	0.138	*0.257*	-0.140	0.134	*0.298*
YR11 * HCC 104, 105	-0.018	0.094	*0.849*	0.076	0.088	*0.389*
YR13 * HCC 104, 105	-0.013	0.113	*0.909*	0.071	0.106	*0.502*
YR14 * HCC 104, 105	0.160	0.099	*0.107*	0.154	0.088	*0.078*
YR15 * HCC 104, 105	0.141	0.114	*0.219*	0.137	0.105	*0.195*
YR11 * HCC 108	0.194	0.108	*0.072*	0.121	0.093	*0.190*
YR13 * HCC 108	0.092	0.132	*0.486*	0.038	0.116	*0.742*
YR14 * HCC 108	-0.003	0.116	*0.976*	-0.057	0.099	*0.560*
YR15 * HCC 108	-0.017	0.115	*0.881*	-0.029	0.097	*0.767*
YR11 * HCC 111, 112	-0.194	0.192	*0.312*	-0.144	0.163	*0.378*
YR13 * HCC 111, 112	0.152	0.246	*0.537*	0.251	0.226	*0.268*
YR14 * HCC 111, 112	-0.115	0.219	*0.601*	-0.171	0.204	*0.400*
YR15 * HCC 111, 112	-0.139	0.238	*0.560*	-0.016	0.214	*0.941*
YR11 * HCC 119	-0.569	0.415	*0.170*	-0.168	0.395	*0.670*
YR13 * HCC 119	0.151	0.398	*0.704*	-0.157	0.351	*0.654*
YR14 * HCC 119	-0.353	0.447	*0.430*	-0.405	0.423	*0.338*
YR15 * HCC 119	-0.147	0.385	*0.701*	-0.070	0.384	*0.854*
YR11 * HCC 130	0.007	0.289	*0.981*	-0.284	0.260	*0.276*
YR13 * HCC 130	0.088	0.275	*0.750*	0.093	0.279	*0.738*
YR14 * HCC 130	0.184	0.325	*0.571*	-0.060	0.328	*0.856*
YR15 * HCC 130	0.113	0.285	*0.693*	-0.079	0.274	*0.774*
YR11 * HCC 131	-0.095	0.104	*0.360*	-0.114	0.110	*0.300*
YR13 * HCC 131	-0.147	0.092	*0.111*	-0.178	0.089	*0.046*
YR14 * HCC 131	-0.093	0.100	*0.349*	-0.124	0.098	*0.208*
YR15 * HCC 131	-0.126	0.095	*0.181*	-0.161	0.095	*0.090*
YR11 * HCC 148	-0.101	0.126	*0.425*	-0.179	0.108	*0.098*
YR13 * HCC 148	-0.307	0.135	*0.023*	-0.312	0.142	*0.028*
YR14 * HCC 148	-0.206	0.117	*0.078*	-0.240	0.127	*0.058*
YR15 * HCC 148	-0.030	0.143	*0.836*	-0.059	0.122	*0.627*
YR11 * HCC 149	0.225	0.204	*0.270*	0.051	0.192	*0.788*
YR13 * HCC 149	0.130	0.203	*0.522*	-0.047	0.207	*0.822*
YR14 * HCC 149	-0.080	0.207	*0.697*	-0.117	0.198	*0.556*
YR15 * HCC 149	0.421	0.219	*0.055*	0.406	0.221	*0.066*
YR11 * HCC 157	-0.274	0.234	*0.242*	-0.310	0.216	*0.151*
YR13 * HCC 157	-0.260	0.255	*0.307*	-0.341	0.215	*0.113*
YR14 * HCC 157	0.091	0.238	*0.701*	-0.011	0.201	*0.955*
YR15 * HCC 157	-0.134	0.323	*0.678*	-0.129	0.302	*0.669*
YR11 * HCC 158	0.173	0.223	*0.437*	0.141	0.193	*0.465*
YR13 * HCC 158	0.047	0.205	*0.820*	-0.043	0.170	*0.802*
YR14 * HCC 158	0.338	0.200	*0.091*	0.268	0.173	*0.121*
YR15 * HCC 158	0.374	0.196	*0.057*	0.254	0.185	*0.170*

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Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * HCC 164	-0.036	0.187	*0.847*	-0.025	0.167	*0.880*
YR13 * HCC 164	-0.019	0.204	*0.925*	0.025	0.184	*0.892*
YR14 * HCC 164	-0.112	0.238	*0.639*	0.015	0.206	*0.942*
YR15 * HCC 164	0.044	0.204	*0.829*	0.111	0.197	*0.573*
YR11 * HCC 176	-0.483	0.215	*0.025*	-0.244	0.202	*0.227*
YR13 * HCC 176	-0.180	0.221	*0.417*	-0.070	0.197	*0.720*
YR14 * HCC 176	-0.085	0.237	*0.720*	-0.077	0.200	*0.701*
YR15 * HCC 176	-0.266	0.222	*0.232*	-0.211	0.232	*0.363*
YR11 * Any PA/NP in facility	-0.124	0.121	*0.304*	-0.062	0.102	*0.545*
YR13 * Any PA/NP in facility	-0.131	0.135	*0.334*	-0.065	0.111	*0.558*
YR14 * Any PA/NP in facility	0.221	0.131	*0.092*	0.159	0.113	*0.159*
YR15 * Any PA/NP in facility	0.111	0.138	*0.421*	0.138	0.122	*0.261*
YR11 * RN staffing HPRD	0.007	0.014	*0.611*	0.003	0.013	*0.818*
YR13 * RN staffing HPRD	0.028	0.016	*0.084*	0.028	0.014	*0.040*
YR14 * RN staffing HPRD	0.014	0.013	*0.290*	0.015	0.011	*0.173*
YR15 * RN staffing HPRD	0.013	0.013	*0.319*	0.016	0.012	*0.182*
YR11 * LPN staffing HPRD	-0.008	0.034	*0.826*	-0.008	0.027	*0.771*
YR13 * LPN staffing HPRD	-0.011	0.024	*0.648*	-0.010	0.022	*0.648*
YR14 * LPN staffing HPRD	-0.020	0.023	*0.388*	-0.015	0.021	*0.463*
YR15 * LPN staffing HPRD	-0.028	0.025	*0.258*	-0.033	0.023	*0.156*
YR11 * CNA staffing HPRD	0.060	0.051	*0.245*	0.041	0.038	*0.277*
YR13 * CNA staffing HPRD	-0.013	0.037	*0.716*	-0.017	0.033	*0.608*
YR14 * CNA staffing HPRD	-0.047	0.027	*0.077*	-0.059	0.023	*0.010*
YR15 * CNA staffing HPRD	0.047	0.038	*0.208*	0.035	0.032	*0.267*
YR11 * For-profit	-0.161	0.097	*0.096*	-0.107	0.086	*0.213*
YR13 * For-profit	-0.158	0.125	*0.204*	-0.163	0.111	*0.141*
YR14 * For-profit	-0.115	0.143	*0.424*	-0.077	0.136	*0.570*
YR15 * For-profit	0.180	0.139	*0.193*	0.144	0.138	*0.294*
YR11 * Chain	-0.042	0.117	*0.716*	-0.003	0.090	*0.973*
YR13 * Chain	0.172	0.172	*0.317*	0.172	0.145	*0.235*
YR14 * Chain	-0.018	0.214	*0.934*	0.022	0.184	*0.907*
YR15 * Chain	0.123	0.170	*0.470*	0.154	0.161	*0.336*
YR11 * Percent Medicaid residents	-0.001	0.004	*0.783*	-0.004	0.004	*0.300*
YR13 * Percent Medicaid residents	0.001	0.007	*0.910*	0.002	0.006	*0.786*
YR14 * Percent Medicaid residents	-0.005	0.005	*0.278*	-0.005	0.005	*0.287*
YR15 * Percent Medicaid residents	-0.003	0.005	*0.480*	-0.004	0.005	*0.426*
YR11 * Percent Medicare residents	0.015	0.009	*0.092*	0.006	0.008	*0.466*
YR13 * Percent Medicare residents	0.004	0.010	*0.735*	0.003	0.009	*0.735*
YR14 * Percent Medicare residents	-0.006	0.009	*0.532*	-0.008	0.009	*0.384*
YR15 * Percent Medicare residents	-0.007	0.009	*0.459*	-0.009	0.009	*0.314*

(continued)

Table D.2 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Utilization Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Any potentially avoidable hospitalizations			Count of potentially avoidable hospitalizations		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * Percent residents with advanced directives	-0.003	0.001	*0.062*	-0.003	0.001	*0.012*
YR13 * Percent residents with advanced directives	0.001	0.002	*0.775*	0.001	0.002	*0.585*
YR14 * Percent residents with advanced directives	0.000	0.001	*0.995*	0.000	0.001	*0.799*
YR15 * Percent residents with advanced directives	-0.001	0.002	*0.449*	0.000	0.001	*0.918*
YR11 * Alzheimer's unit in facility	-0.007	0.119	*0.952*	-0.065	0.103	*0.526*
YR13 * Alzheimer's unit in facility	-0.034	0.126	*0.789*	-0.005	0.112	*0.965*
YR14 * Alzheimer's unit in facility	0.009	0.154	*0.955*	-0.010	0.145	*0.943*
YR15 * Alzheimer's unit in facility	0.203	0.153	*0.185*	0.175	0.150	*0.245*
Intercept	-1.713	0.554	*0.002*	-2.365	0.532	*0.000*
N		33,125			33,125	

NOTES:

[1]Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included. [2]Any hospice use in 2 months before episode period as well as the interaction of this variable with each year was dropped from all utilization count models for Nevada because of model convergence issues. In addition, variables from all models were dropped as needed on a state by state basis when variables perfectly predicted the outcome. [3] The interaction of HCC1 with each year was dropped from all models in all states because of model convergence issues.

Models of any utilization of a given type (i.e., probability models) were estimated using generalized estimating equation (GEE) logistic regression; utilization count models were estimated using GEE negative binomial regression.

SOURCE: RTI analysis of Medicare claims data and MDS 3.0 resident assessment data (RTI programming references: MS01/mc_01_dich_util, MS03/ms_03_count_util).

Table D.3
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

Parameter	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
	β	**SE**	***P***	**β**	**SE**	***P***
ECCP	0.127	0.125	*0.311*	0.038	0.054	*0.482*
ECCP * Year 11	-0.303	0.128	*0.018*	0.017	0.059	*0.776*
ECCP * Year 13	-0.220	0.163	*0.178*	-0.021	0.065	*0.747*
ECCP * Year 14	-0.299	0.144	*0.038*	0.055	0.082	*0.501*
ECCP * Year 15	-0.450	0.176	*0.011*	0.014	0.073	*0.849*
Year 11	0.121	0.629	*0.847*	-0.031	0.331	*0.926*
Year 13	-0.377	1.066	*0.724*	-0.743	0.363	*0.041*
Year 14	-0.678	0.915	*0.459*	-0.043	0.374	*0.908*
Year 15	0.094	0.822	*0.909*	-0.002	0.361	*0.995*
Days in an ECCP or comparison facility [1]	0.001	0.003	*0.638*	-0.001	0.002	*0.650*
Eligible due to no discharge plan (likely short-stay)	-1.160	0.155	*0.000*	-0.118	0.104	*0.254*
Exposure (Initiative-related days) * Eligible due to no discharge plan	0.091	0.015	*0.000*	0.025	0.009	*0.009*
Dual eligible (any episode month)	-0.126	0.089	*0.157*	-0.079	0.057	*0.162*
MA plan (any episode month)	-0.217	0.218	*0.320*	-0.531	0.158	*0.001*
Male, < 65	-0.118	0.215	*0.581*	-0.014	0.182	*0.939*
Male, 65-69	0.009	0.287	*0.975*	-0.394	0.142	*0.006*
Male, 70-74	-0.138	0.249	*0.579*	-0.372	0.143	*0.010*
Male, 75-79	-0.239	0.197	*0.225*	-0.158	0.156	*0.313*
Male, 80-84	-0.213	0.229	*0.352*	-0.305	0.149	*0.041*
Male, 85-89	-0.176	0.230	*0.446*	-0.305	0.137	*0.026*
Male, 90-94	-0.146	0.225	*0.517*	-0.223	0.263	*0.397*
Male, 95+	0.003	0.399	*0.993*	-0.615	0.187	*0.001*
Female, < 65	-0.393	0.222	*0.076*	-0.222	0.126	*0.078*
Female, 70-74	-0.459	0.187	*0.014*	-0.095	0.139	*0.494*
Female, 75-79	-0.227	0.172	*0.188*	-0.231	0.137	*0.092*
Female, 80-84	-0.128	0.190	*0.500*	-0.309	0.123	*0.012*
Female, 85-89	-0.297	0.192	*0.122*	-0.454	0.138	*0.001*
Female, 90-94	-0.219	0.190	*0.249*	-0.508	0.121	*0.000*
Female, 95+	-0.245	0.227	*0.281*	-0.511	0.163	*0.002*
Black, non-Hispanic	0.027	0.127	*0.835*	0.042	0.073	*0.567*
Other race/ethnicity	0.073	0.148	*0.624*	0.073	0.106	*0.495*
Dementia	-0.217	0.081	*0.007*	-0.062	0.040	*0.117*
Anemia	0.142	0.081	*0.081*	0.100	0.058	*0.084*
Body Mass Index (BMI)	0.000	0.005	*0.928*	-0.006	0.002	*0.003*
ADL Score	0.003	0.007	*0.689*	0.001	0.005	*0.849*
Any hospice use in 2 months before episode period	-1.380	0.244	*0.000*	-0.199	0.177	*0.261*
HCC 1[2]	0.483	0.272	*0.076*	0.027	0.153	*0.861*
HCC 2	0.201	0.145	*0.166*	0.073	0.072	*0.313*
HCC 7-10	0.030	0.119	*0.799*	0.009	0.083	*0.913*
HCC 15, 16, 18	0.301	0.072	*0.000*	-0.064	0.052	*0.225*
HCC 19	0.163	0.079	*0.041*	-0.059	0.052	*0.257*

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Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
HCC 25-27	0.149	0.256	*0.562*	0.220	0.156	*0.157*
HCC 31	0.064	0.188	*0.735*	-0.150	0.115	*0.192*
HCC 32	0.151	0.194	*0.436*	-0.076	0.115	*0.509*
HCC 33	0.506	0.291	*0.083*	0.074	0.191	*0.698*
HCC 37	0.093	0.174	*0.593*	0.019	0.126	*0.881*
HCC 38	0.077	0.131	*0.559*	-0.086	0.099	*0.386*
HCC 44	-0.172	0.257	*0.503*	-0.094	0.115	*0.413*
HCC 45	0.248	0.278	*0.373*	-0.099	0.167	*0.553*
HCC 54	0.025	0.166	*0.879*	0.206	0.125	*0.099*
HCC 55	-0.056	0.096	*0.557*	-0.080	0.055	*0.143*
HCC 67, 68, 101	-0.205	0.189	*0.279*	-0.223	0.148	*0.131*
HCC 69	-0.334	0.389	*0.391*	0.226	0.230	*0.327*
HCC 72	-0.549	0.342	*0.109*	0.241	0.356	*0.499*
HCC 74	0.038	0.106	*0.724*	0.038	0.075	*0.610*
HCC 75	0.093	0.265	*0.725*	-0.036	0.167	*0.829*
HCC 77	-0.457	0.291	*0.117*	0.811	0.244	*0.001*
HCC 79	0.207	0.117	*0.077*	0.066	0.062	*0.283*
HCC 80	0.319	0.068	*0.000*	0.091	0.042	*0.028*
HCC 81	0.406	0.176	*0.021*	-0.071	0.128	*0.579*
HCC 82	-0.051	0.221	*0.817*	0.085	0.151	*0.574*
HCC 83	0.018	0.136	*0.894*	0.050	0.057	*0.378*
HCC 92	0.087	0.069	*0.206*	-0.009	0.038	*0.815*
HCC 96	0.009	0.089	*0.916*	-0.039	0.065	*0.549*
HCC 104, 105	-0.117	0.068	*0.086*	-0.031	0.039	*0.419*
HCC 108	0.307	0.081	*0.000*	0.098	0.062	*0.112*
HCC 111, 112	-0.016	0.154	*0.917*	-0.182	0.077	*0.018*
HCC 119	0.367	0.253	*0.147*	0.139	0.192	*0.469*
HCC 130	0.196	0.250	*0.432*	0.176	0.132	*0.184*
HCC 131	0.282	0.064	*0.000*	0.050	0.046	*0.282*
HCC 148	0.109	0.072	*0.128*	0.092	0.061	*0.132*
HCC 149	-0.264	0.132	*0.044*	0.143	0.115	*0.211*
HCC 157	0.234	0.179	*0.192*	-0.050	0.111	*0.652*
HCC 158	-0.321	0.138	*0.020*	-0.055	0.099	*0.576*
HCC 164	-0.045	0.145	*0.757*	-0.063	0.102	*0.535*
HCC 176	0.433	0.181	*0.017*	-0.013	0.114	*0.907*
Any PA/NP in facility	-0.053	0.139	*0.702*	0.049	0.061	*0.418*
RN staffing HPRD	-0.032	0.015	*0.026*	0.005	0.006	*0.454*
LPN staffing HPRD	0.000	0.019	*0.982*	0.023	0.009	*0.008*
CNA staffing HPRD	-0.015	0.031	*0.642*	0.046	0.014	*0.001*
For-profit	0.384	0.148	*0.010*	-0.082	0.060	*0.171*
Chain	-0.117	0.181	*0.517*	0.006	0.077	*0.939*
Percent Medicaid residents	0.007	0.007	*0.340*	0.005	0.002	*0.017*
Percent Medicare residents	-0.001	0.011	*0.951*	0.009	0.004	*0.017*

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Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
Percent residents with advanced directives	0.001	0.002	*0.578*	-0.001	0.001	*0.079*
Alzheimer's unit in facility	0.120	0.157	*0.446*	-0.006	0.055	*0.916*
YR11 * Exposure (Initiative-related days) [1]	0.001	0.004	*0.765*	-0.003	0.003	*0.324*
YR13 * Exposure (Initiative-related days) [1]	-0.004	0.004	*0.305*	-0.001	0.003	*0.795*
YR14 * Exposure (Initiative-related days) [1]	0.004	0.004	*0.372*	-0.002	0.003	*0.616*
YR15 * Exposure (Initiative-related days) [1]	-0.006	0.005	*0.189*	-0.006	0.003	*0.095*
YR11 * Eligible due to no discharge plan (likely short-stay)	-0.186	0.252	*0.459*	-0.030	0.112	*0.789*
YR13 * Eligible due to no discharge plan (likely short-stay)	0.199	0.206	*0.334*	-0.179	0.118	*0.127*
YR14 * Eligible due to no discharge plan (likely short-stay)	0.355	0.207	*0.087*	0.055	0.148	*0.708*
YR15 * Eligible due to no discharge plan (likely short-stay)	-0.010	0.230	*0.965*	-0.186	0.147	*0.208*
YR11 * Eligible due to no discharge plan	-0.001	0.025	*0.983*	-0.013	0.015	*0.404*
YR13 * Eligible due to no discharge plan	0.005	0.029	*0.857*	-0.006	0.016	*0.691*
YR14 * Eligible due to no discharge plan	0.000	0.023	*0.991*	-0.005	0.016	*0.750*
YR15 * Eligible due to no discharge plan	0.003	0.020	*0.859*	0.006	0.016	*0.685*
YR11 * Dual eligible (any episode month)	0.073	0.108	*0.499*	0.024	0.067	*0.719*
YR13 * Dual eligible (any episode month)	0.159	0.120	*0.186*	0.006	0.072	*0.934*
YR14 * Dual eligible (any episode month)	0.080	0.129	*0.533*	0.138	0.076	*0.068*
YR15 * Dual eligible (any episode month)	0.170	0.122	*0.164*	-0.045	0.075	*0.548*
YR11 * MA plan (any episode month)	0.331	0.276	*0.230*	-0.040	0.201	*0.841*
YR13 * MA plan (any episode month)	-0.181	0.327	*0.580*	0.383	0.191	*0.045*
YR14 * MA plan (any episode month)	-0.487	0.367	*0.184*	0.872	0.236	*0.000*
YR15 * MA plan (any episode month)	-0.590	0.330	*0.074*	0.536	0.214	*0.012*
YR11 * Male, < 65	-0.394	0.347	*0.257*	0.490	0.257	*0.056*
YR13 * Male, < 65	0.451	0.270	*0.096*	0.246	0.229	*0.283*
YR14 * Male, < 65	0.306	0.266	*0.250*	-0.220	0.262	*0.402*
YR 15* Male, < 65	-0.227	0.319	*0.477*	-0.160	0.221	*0.471*
YR11 * Male, 65-69	-0.013	0.350	*0.971*	0.426	0.190	*0.025*
YR13 * Male, 65-69	0.136	0.378	*0.719*	0.737	0.338	*0.030*
YR14 * Male, 65-69	0.116	0.388	*0.764*	0.226	0.252	*0.371*
YR15 * Male, 65-69	-0.169	0.382	*0.658*	0.252	0.219	*0.250*
YR11 * Male, 70-74	-0.007	0.316	*0.982*	0.566	0.226	*0.012*
YR13 * Male, 70-74	0.512	0.372	*0.168*	0.490	0.183	*0.007*
YR14 * Male, 70-74	0.336	0.341	*0.325*	0.077	0.238	*0.747*
YR15 * Male, 70-74	-0.270	0.328	*0.411*	0.293	0.186	*0.115*
YR11 * Male, 75-79	0.366	0.262	*0.162*	0.181	0.205	*0.378*
YR13 * Male, 75-79	0.769	0.360	*0.033*	0.324	0.208	*0.119*
YR14 * Male, 75-79	0.247	0.296	*0.404*	0.127	0.232	*0.585*
YR15 * Male, 75-79	-0.127	0.327	*0.698*	0.060	0.170	*0.724*

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Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * Male, 80-84	0.292	0.293	*0.319*	0.369	0.196	*0.060*
YR13 * Male, 80-84	0.523	0.335	*0.118*	0.393	0.188	*0.037*
YR14 * Male, 80-84	-0.167	0.321	*0.604*	0.099	0.233	*0.672*
YR15 * Male, 80-84	-0.196	0.298	*0.510*	0.223	0.178	*0.209*
YR11 * Male, 85-89	0.150	0.274	*0.585*	0.307	0.181	*0.090*
YR13 * Male, 85-89	0.938	0.347	*0.007*	0.450	0.206	*0.029*
YR14 * Male, 85-89	0.319	0.313	*0.308*	-0.024	0.206	*0.907*
YR15 * Male, 85-89	-0.017	0.351	*0.962*	0.055	0.170	*0.745*
YR11 * Male, 90-94	0.032	0.326	*0.923*	0.084	0.288	*0.772*
YR13 * Male, 90-94	0.751	0.368	*0.041*	0.405	0.292	*0.166*
YR14 * Male, 90-94	0.330	0.338	*0.328*	-0.083	0.304	*0.785*
YR15 * Male, 90-94	0.207	0.301	*0.492*	0.072	0.277	*0.794*
YR11 * Male, 95+	-0.101	0.557	*0.856*	0.657	0.239	*0.006*
YR13 * Male, 95+	0.109	0.660	*0.869*	0.769	0.334	*0.021*
YR14 * Male, 95+	-1.599	1.041	*0.125*	-0.263	0.279	*0.346*
YR15 * Male, 95+	-0.375	0.675	*0.579*	0.132	0.206	*0.521*
YR11 * Female, < 65	0.367	0.300	*0.221*	0.231	0.206	*0.262*
YR13 * Female, < 65	0.777	0.337	*0.021*	0.543	0.192	*0.005*
YR14 * Female, < 65	0.440	0.297	*0.139*	0.441	0.215	*0.040*
YR15 * Female, < 65	0.619	0.245	*0.011*	0.206	0.184	*0.263*
YR11 * Female, 70-74	0.197	0.255	*0.440*	0.004	0.172	*0.983*
YR13 * Female, 70-74	0.663	0.293	*0.023*	0.180	0.214	*0.401*
YR14 * Female, 70-74	0.613	0.285	*0.032*	-0.073	0.222	*0.742*
YR15 * Female, 70-74	0.397	0.268	*0.138*	0.005	0.155	*0.974*
YR11 * Female, 75-79	0.052	0.250	*0.836*	0.225	0.182	*0.214*
YR13 * Female, 75-79	0.646	0.248	*0.009*	0.386	0.199	*0.052*
YR14 * Female, 75-79	0.164	0.304	*0.588*	-0.117	0.207	*0.572*
YR15 * Female, 75-79	0.001	0.290	*0.998*	0.036	0.182	*0.843*
YR11 * Female, 80-84	-0.061	0.262	*0.816*	0.308	0.154	*0.046*
YR13 * Female, 80-84	0.643	0.271	*0.018*	0.512	0.176	*0.004*
YR14 * Female, 80-84	0.075	0.242	*0.758*	0.011	0.196	*0.956*
YR15 * Female, 80-84	0.210	0.241	*0.383*	0.517	0.164	*0.002*
YR11 * Female, 85-89	0.993	0.291	*0.001*	0.604	0.197	*0.002*
YR13 * Female, 85-89	0.249	0.259	*0.336*	0.136	0.212	*0.521*
YR14 * Female, 85-89	-0.011	0.262	*0.966*	0.228	0.140	*0.104*
YR15 * Female, 85-89	0.018	0.276	*0.949*	0.149	0.137	*0.277*
YR11 * Female, 90-94	0.083	0.249	*0.740*	0.378	0.166	*0.023*
YR13 * Female, 90-94	0.777	0.290	*0.007*	0.570	0.166	*0.001*
YR14 * Female, 90-94	-0.027	0.259	*0.917*	0.109	0.226	*0.630*
YR15 * Female, 90-94	-0.110	0.287	*0.701*	0.293	0.145	*0.044*
YR11 * Female, 95+	0.003	0.284	*0.991*	0.348	0.216	*0.108*
YR13 * Female, 95+	0.637	0.316	*0.044*	0.696	0.221	*0.002*
YR14 * Female, 95+	0.068	0.296	*0.819*	0.186	0.226	*0.411*
YR15 * Female, 95+	-0.327	0.332	*0.324*	0.173	0.187	*0.354*

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Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * Black, non-Hispanic	0.005	0.177	*0.979*	0.051	0.090	*0.576*
YR13 * Black, non-Hispanic	0.232	0.175	*0.185*	-0.017	0.093	*0.856*
YR14 * Black, non-Hispanic	0.033	0.158	*0.836*	0.069	0.085	*0.418*
YR15 * Black, non-Hispanic	0.056	0.164	*0.731*	0.102	0.096	*0.289*
YR11 * Other race/ethnicity	0.114	0.288	*0.691*	-0.032	0.159	*0.838*
YR13 * Other race/ethnicity	-0.092	0.268	*0.732*	0.040	0.173	*0.817*
YR14 * Other race/ethnicity	-0.140	0.182	*0.442*	0.101	0.167	*0.546*
YR15 * Other race/ethnicity	-0.296	0.268	*0.269*	0.209	0.131	*0.111*
YR11 * Dementia	-0.008	0.107	*0.938*	0.005	0.061	*0.935*
YR13 * Dementia	-0.067	0.107	*0.529*	0.023	0.053	*0.658*
YR14 * Dementia	0.180	0.106	*0.090*	0.087	0.057	*0.127*
YR15 * Dementia	0.203	0.126	*0.106*	0.086	0.052	*0.094*
YR11 * Anemia	-0.103	0.111	*0.351*	-0.082	0.070	*0.245*
YR13 * Anemia	0.063	0.110	*0.568*	-0.187	0.082	*0.023*
YR14 * Anemia	0.024	0.120	*0.842*	-0.125	0.071	*0.078*
YR15 * Anemia	-0.029	0.134	*0.826*	-0.120	0.070	*0.089*
YR11 * Body Mass Index (BMI)	0.000	0.008	*0.975*	0.006	0.003	*0.094*
YR13 * Body Mass Index (BMI)	0.004	0.008	*0.588*	0.004	0.003	*0.198*
YR14 * Body Mass Index (BMI)	-0.003	0.008	*0.733*	0.005	0.003	*0.135*
YR15 * Body Mass Index (BMI)	-0.005	0.008	*0.503*	0.006	0.003	*0.067*
YR11 * ADL Score	0.010	0.009	*0.278*	-0.002	0.006	*0.790*
YR13 * ADL Score	0.001	0.010	*0.908*	0.009	0.006	*0.163*
YR14 * ADL Score	0.011	0.009	*0.246*	0.004	0.007	*0.521*
YR15 * ADL Score	-0.013	0.012	*0.294*	0.006	0.006	*0.371*
YR11 * Any hospice use in 2 months before episode period	-0.181	0.368	*0.623*	0.072	0.249	*0.772*
YR13 * Any hospice use in 2 months before episode period	0.207	0.359	*0.564*	0.278	0.252	*0.272*
YR14 * Any hospice use in 2 months before episode period	0.318	0.292	*0.276*	0.062	0.206	*0.765*
YR15 * Any hospice use in 2 months before episode period	-0.276	0.347	*0.426*	0.347	0.239	*0.147*
YR11 * HCC 2	0.121	0.213	*0.570*	0.037	0.105	*0.723*
YR13 * HCC 2	-0.030	0.170	*0.859*	-0.135	0.104	*0.197*
YR14 * HCC 2	-0.104	0.196	*0.596*	0.037	0.109	*0.733*
YR15 * HCC 2	-0.096	0.158	*0.543*	-0.085	0.109	*0.435*
YR11 * HCC 7-10	0.090	0.141	*0.523*	0.129	0.131	*0.324*
YR13 * HCC 7-10	-0.154	0.157	*0.328*	-0.081	0.132	*0.538*
YR14 * HCC 7-10	0.137	0.172	*0.424*	0.000	0.085	*0.999*
YR15 * HCC 7-10	0.050	0.160	*0.754*	0.024	0.077	*0.758*
YR11 * HCC 15, 16, 18	-0.126	0.127	*0.322*	0.136	0.067	*0.041*
YR13 * HCC 15, 16, 18	-0.051	0.106	*0.630*	0.075	0.090	*0.404*
YR14 * HCC 15, 16, 18	-0.179	0.126	*0.156*	0.113	0.079	*0.150*
YR15 * HCC 15, 16, 18	0.000	0.119	*0.997*	0.010	0.083	*0.908*

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Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * HCC 19	-0.170	0.119	*0.153*	0.043	0.067	*0.521*
YR13 * HCC 19	-0.246	0.127	*0.053*	0.035	0.080	*0.663*
YR14 * HCC 19	-0.111	0.133	*0.403*	0.117	0.077	*0.129*
YR15 * HCC 19	-0.008	0.130	*0.951*	-0.026	0.072	*0.718*
YR11 * HCC 25-27	0.153	0.365	*0.674*	0.000	0.201	*0.999*
YR13 * HCC 25-27	-0.531	0.347	*0.126*	0.071	0.253	*0.779*
YR14 * HCC 25-27	0.268	0.384	*0.485*	-0.136	0.214	*0.527*
YR15 * HCC 25-27	-0.490	0.311	*0.115*	0.031	0.217	*0.885*
YR11 * HCC 31	0.081	0.281	*0.774*	0.153	0.143	*0.286*
YR13 * HCC 31	0.172	0.273	*0.528*	0.015	0.137	*0.912*
YR14 * HCC 31	-0.073	0.281	*0.796*	0.295	0.114	*0.010*
YR15 * HCC 31	-0.193	0.258	*0.455*	0.196	0.176	*0.264*
YR11 * HCC 32	-0.343	0.327	*0.294*	0.170	0.188	*0.366*
YR13 * HCC 32	-0.225	0.291	*0.438*	0.020	0.175	*0.907*
YR14 * HCC 32	-0.055	0.334	*0.869*	-0.001	0.158	*0.996*
YR15 * HCC 32	0.057	0.305	*0.853*	-0.024	0.174	*0.891*
YR11 * HCC 33	-1.043	0.496	*0.035*	-0.402	0.328	*0.220*
YR13 * HCC 33	-0.700	0.496	*0.158*	-0.361	0.248	*0.145*
YR14 * HCC 33	-0.346	0.513	*0.501*	-0.155	0.234	*0.508*
YR15 * HCC 33	-0.989	0.436	*0.023*	0.153	0.280	*0.584*
YR11 * HCC 37	-0.282	0.293	*0.336*	-0.099	0.175	*0.570*
YR13 * HCC 37	-0.077	0.275	*0.781*	0.122	0.157	*0.438*
YR14 * HCC 37	0.051	0.282	*0.856*	-0.008	0.142	*0.956*
YR15 * HCC 37	-0.403	0.260	*0.121*	-0.293	0.182	*0.108*
YR11 * HCC 38	0.030	0.187	*0.873*	0.158	0.146	*0.278*
YR13 * HCC 38	-0.142	0.201	*0.480*	0.021	0.136	*0.875*
YR14 * HCC 38	-0.110	0.233	*0.639*	0.000	0.142	*0.998*
YR15 * HCC 38	0.100	0.234	*0.668*	0.143	0.124	*0.247*
YR11 * HCC 44	0.642	0.340	*0.059*	-0.048	0.181	*0.790*
YR13 * HCC 44	0.687	0.380	*0.071*	0.057	0.183	*0.758*
YR14 * HCC 44	0.449	0.421	*0.286*	-0.066	0.198	*0.737*
YR15 * HCC 44	0.389	0.487	*0.424*	0.405	0.260	*0.120*
YR11 * HCC 45	-0.355	0.348	*0.307*	-0.090	0.314	*0.775*
YR13 * HCC 45	-0.436	0.384	*0.256*	0.411	0.215	*0.056*
YR14 * HCC 45	-0.302	0.310	*0.331*	0.104	0.172	*0.547*
YR15 * HCC 45	0.190	0.360	*0.599*	-0.173	0.217	*0.426*
YR11 * HCC 54	-0.415	0.255	*0.104*	-0.355	0.206	*0.084*
YR13 * HCC 54	-0.017	0.305	*0.956*	-0.190	0.165	*0.250*
YR14 * HCC 54	-0.130	0.223	*0.561*	-0.208	0.192	*0.277*
YR15 * HCC 54	-0.131	0.255	*0.608*	0.043	0.177	*0.808*
YR11 * HCC 55	0.229	0.124	*0.063*	0.054	0.073	*0.456*
YR13 * HCC 55	0.203	0.132	*0.122*	0.001	0.077	*0.987*
YR14 * HCC 55	0.126	0.112	*0.261*	0.141	0.080	*0.080*
YR15 * HCC 55	-0.002	0.129	*0.987*	0.198	0.087	*0.023*

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Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * HCC 67, 68, 101	0.391	0.266	*0.142*	0.548	0.214	*0.010*
YR13 * HCC 67, 68, 101	0.283	0.243	*0.244*	0.278	0.233	*0.234*
YR14 * HCC 67, 68, 101	-0.079	0.270	*0.769*	0.403	0.207	*0.052*
YR15 * HCC 67, 68, 101	0.232	0.227	*0.306*	0.468	0.167	*0.005*
YR11 * HCC 69	0.050	0.519	*0.923*	-0.261	0.243	*0.281*
YR13 * HCC 69	0.538	0.542	*0.321*	-0.038	0.270	*0.888*
YR14 * HCC 69	-0.076	0.488	*0.876*	-0.274	0.366	*0.454*
YR15 * HCC 69	-0.175	0.535	*0.743*	-0.393	0.346	*0.255*
YR11 * HCC 72	0.303	0.399	*0.447*	-0.276	0.472	*0.560*
YR13 * HCC 72	0.419	0.528	*0.427*	-0.413	0.522	*0.429*
YR14 * HCC 72	0.274	0.466	*0.557*	-0.256	0.431	*0.552*
YR15 * HCC 72	0.078	0.495	*0.875*	-0.307	0.418	*0.462*
YR11 * HCC 74	0.122	0.121	*0.312*	0.027	0.094	*0.772*
YR13 * HCC 74	0.199	0.147	*0.174*	-0.165	0.107	*0.122*
YR14 * HCC 74	0.120	0.125	*0.339*	-0.145	0.093	*0.121*
YR15 * HCC 74	0.088	0.176	*0.615*	-0.067	0.103	*0.518*
YR11 * HCC 75	-0.488	0.564	*0.387*	-0.462	0.229	*0.044*
YR13 * HCC 75	-0.260	0.451	*0.564*	-0.093	0.216	*0.666*
YR14 * HCC 75	-0.161	0.503	*0.749*	-0.321	0.209	*0.125*
YR15 * HCC 75	-0.090	0.466	*0.847*	0.336	0.280	*0.231*
YR11 * HCC 77	1.215	0.460	*0.008*	-0.652	0.315	*0.039*
YR13 * HCC 77	0.174	0.483	*0.719*	-0.440	0.199	*0.027*
YR14 * HCC 77	0.809	0.401	*0.043*	-0.433	0.263	*0.099*
YR15 * HCC 77	-0.196	0.575	*0.733*	-0.839	0.349	*0.016*
YR11 * HCC 79	0.037	0.153	*0.807*	-0.075	0.093	*0.419*
YR13 * HCC 79	0.072	0.161	*0.657*	-0.027	0.085	*0.751*
YR14 * HCC 79	0.274	0.138	*0.047*	-0.012	0.090	*0.894*
YR15 * HCC 79	0.051	0.153	*0.736*	-0.082	0.078	*0.292*
YR11 * HCC 80	-0.134	0.110	*0.221*	-0.067	0.077	*0.383*
YR13 * HCC 80	-0.109	0.097	*0.261*	-0.051	0.055	*0.351*
YR14 * HCC 80	-0.031	0.101	*0.759*	-0.073	0.059	*0.219*
YR15 * HCC 80	-0.110	0.123	*0.372*	-0.063	0.070	*0.365*
YR11 * HCC 81	-0.541	0.297	*0.068*	0.004	0.162	*0.980*
YR13 * HCC 81	-0.441	0.265	*0.096*	0.092	0.166	*0.579*
YR14 * HCC 81	-0.267	0.275	*0.333*	0.028	0.172	*0.870*
YR15 * HCC 81	-0.297	0.211	*0.160*	0.105	0.168	*0.531*
YR11 * HCC 82	0.356	0.281	*0.205*	0.132	0.176	*0.452*
YR13 * HCC 82	-0.296	0.347	*0.393*	0.105	0.205	*0.609*
YR14 * HCC 82	0.210	0.256	*0.411*	-0.048	0.186	*0.796*
YR15 * HCC 82	-0.287	0.300	*0.339*	0.151	0.173	*0.382*
YR11 * HCC 83	0.197	0.185	*0.287*	-0.224	0.096	*0.020*
YR13 * HCC 83	0.186	0.196	*0.343*	-0.129	0.104	*0.214*
YR14 * HCC 83	-0.013	0.209	*0.952*	-0.098	0.099	*0.323*
YR15 * HCC 83	0.184	0.198	*0.352*	-0.102	0.069	*0.142*

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Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * HCC 92	0.270	0.103	*0.009*	0.043	0.051	*0.395*
YR13 * HCC 92	0.044	0.117	*0.706*	0.038	0.063	*0.551*
YR14 * HCC 92	0.145	0.120	*0.230*	0.114	0.065	*0.080*
YR15 * HCC 92	0.007	0.127	*0.957*	-0.073	0.064	*0.256*
YR11 * HCC 96	0.059	0.126	*0.641*	-0.056	0.096	*0.562*
YR13 * HCC 96	0.180	0.130	*0.166*	0.057	0.088	*0.519*
YR14 * HCC 96	-0.042	0.151	*0.783*	0.094	0.093	*0.317*
YR15 * HCC 96	-0.142	0.136	*0.297*	0.070	0.099	*0.481*
YR11 * HCC 104, 105	-0.030	0.092	*0.743*	-0.009	0.063	*0.885*
YR13 * HCC 104, 105	-0.018	0.113	*0.870*	0.035	0.048	*0.465*
YR14 * HCC 104, 105	0.175	0.100	*0.081*	0.041	0.048	*0.397*
YR15 * HCC 104, 105	0.155	0.112	*0.168*	-0.027	0.060	*0.655*
YR11 * HCC 108	0.195	0.106	*0.066*	-0.061	0.066	*0.354*
YR13 * HCC 108	0.091	0.133	*0.494*	-0.077	0.081	*0.339*
YR14 * HCC 108	-0.020	0.113	*0.860*	-0.109	0.075	*0.150*
YR15 * HCC 108	-0.015	0.112	*0.894*	-0.067	0.078	*0.388*
YR11 * HCC 111, 112	-0.177	0.190	*0.352*	0.269	0.113	*0.018*
YR13 * HCC 111, 112	0.135	0.245	*0.582*	0.411	0.121	*0.001*
YR14 * HCC 111, 112	-0.121	0.214	*0.570*	0.123	0.113	*0.277*
YR15 * HCC 111, 112	-0.101	0.236	*0.669*	0.199	0.115	*0.083*
YR11 * HCC 119	-0.608	0.418	*0.145*	0.315	0.264	*0.233*
YR13 * HCC 119	0.120	0.396	*0.763*	-0.344	0.220	*0.118*
YR14 * HCC 119	-0.388	0.439	*0.377*	-0.123	0.304	*0.686*
YR15 * HCC 119	-0.201	0.383	*0.599*	-0.123	0.261	*0.637*
YR11 * HCC 130	-0.010	0.292	*0.972*	-0.211	0.193	*0.274*
YR13 * HCC 130	0.069	0.268	*0.796*	0.141	0.188	*0.453*
YR14 * HCC 130	0.058	0.317	*0.854*	-0.159	0.164	*0.331*
YR15 * HCC 130	0.107	0.276	*0.697*	0.078	0.144	*0.588*
YR11 * HCC 131	-0.100	0.102	*0.327*	-0.017	0.067	*0.804*
YR13 * HCC 131	-0.165	0.093	*0.078*	-0.077	0.072	*0.288*
YR14 * HCC 131	-0.103	0.096	*0.281*	-0.135	0.063	*0.032*
YR15 * HCC 131	-0.125	0.099	*0.210*	-0.030	0.058	*0.601*
YR11 * HCC 148	-0.111	0.129	*0.387*	-0.039	0.101	*0.698*
YR13 * HCC 148	-0.305	0.131	*0.020*	-0.169	0.112	*0.132*
YR14 * HCC 148	-0.207	0.118	*0.081*	-0.228	0.121	*0.059*
YR15 * HCC 148	-0.011	0.140	*0.936*	0.016	0.087	*0.851*
YR11 * HCC 149	0.236	0.203	*0.245*	-0.373	0.146	*0.011*
YR13 * HCC 149	0.131	0.210	*0.531*	-0.089	0.142	*0.532*
YR14 * HCC 149	-0.046	0.213	*0.830*	-0.088	0.162	*0.584*
YR15 * HCC 149	0.423	0.227	*0.063*	-0.040	0.148	*0.786*
YR11 * HCC 157	-0.320	0.239	*0.179*	0.113	0.176	*0.521*
YR13 * HCC 157	-0.264	0.254	*0.298*	-0.014	0.181	*0.937*
YR14 * HCC 157	0.022	0.238	*0.925*	0.084	0.150	*0.575*
YR15 * HCC 157	-0.161	0.327	*0.623*	0.161	0.186	*0.386*

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Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * HCC 158	0.163	0.220	*0.460*	-0.088	0.123	*0.476*
YR13 * HCC 158	0.058	0.203	*0.777*	-0.006	0.148	*0.967*
YR14 * HCC 158	0.324	0.197	*0.100*	-0.010	0.159	*0.949*
YR15 * HCC 158	0.381	0.202	*0.059*	0.129	0.114	*0.258*
YR11 * HCC 164	-0.023	0.190	*0.902*	-0.031	0.143	*0.830*
YR13 * HCC 164	-0.015	0.205	*0.942*	-0.033	0.131	*0.799*
YR14 * HCC 164	-0.081	0.237	*0.733*	0.164	0.136	*0.229*
YR15 * HCC 164	0.027	0.209	*0.896*	0.003	0.149	*0.982*
YR11 * HCC 176	-0.443	0.212	*0.037*	0.010	0.181	*0.957*
YR13 * HCC 176	-0.145	0.212	*0.492*	-0.021	0.130	*0.874*
YR14 * HCC 176	-0.081	0.243	*0.740*	-0.012	0.141	*0.930*
YR15 * HCC 176	-0.219	0.227	*0.335*	0.033	0.134	*0.806*
YR11 * Any PA/NP in facility	-0.108	0.159	*0.495*	0.095	0.067	*0.157*
YR13 * Any PA/NP in facility	-0.146	0.156	*0.349*	-0.005	0.079	*0.946*
YR14 * Any PA/NP in facility	-0.057	0.164	*0.728*	-0.015	0.075	*0.838*
YR15 * Any PA/NP in facility	0.052	0.183	*0.775*	-0.164	0.081	*0.044*
YR11 * RN staffing HPRD	0.010	0.022	*0.652*	-0.016	0.009	*0.061*
YR13 * RN staffing HPRD	0.008	0.020	*0.691*	0.005	0.008	*0.542*
YR14 * RN staffing HPRD	0.006	0.019	*0.769*	-0.005	0.010	*0.607*
YR15 * RN staffing HPRD	0.016	0.019	*0.382*	-0.006	0.008	*0.426*
YR11 * LPN staffing HPRD	0.002	0.045	*0.970*	-0.037	0.017	*0.032*
YR13 * LPN staffing HPRD	-0.002	0.030	*0.940*	-0.014	0.011	*0.197*
YR14 * LPN staffing HPRD	-0.009	0.024	*0.717*	-0.012	0.013	*0.345*
YR15 * LPN staffing HPRD	-0.008	0.031	*0.807*	-0.020	0.012	*0.106*
YR11 * CNA staffing HPRD	0.051	0.072	*0.478*	-0.008	0.024	*0.758*
YR13 * CNA staffing HPRD	0.011	0.051	*0.826*	-0.044	0.016	*0.005*
YR14 * CNA staffing HPRD	-0.055	0.035	*0.116*	-0.050	0.018	*0.005*
YR15 * CNA staffing HPRD	0.022	0.047	*0.644*	-0.035	0.015	*0.023*
YR11 * For-profit	-0.257	0.111	*0.020*	0.081	0.069	*0.244*
YR13 * For-profit	-0.273	0.182	*0.134*	-0.030	0.073	*0.684*
YR14 * For-profit	-0.204	0.144	*0.157*	0.048	0.100	*0.631*
YR15 * For-profit	-0.103	0.202	*0.610*	0.015	0.086	*0.861*
YR11 * Chain	0.064	0.176	*0.718*	0.007	0.085	*0.936*
YR13 * Chain	0.085	0.269	*0.751*	0.208	0.095	*0.029*
YR14 * Chain	0.134	0.215	*0.534*	0.048	0.098	*0.624*
YR15 * Chain	0.337	0.248	*0.175*	0.114	0.105	*0.278*
YR11 * Percent Medicaid residents	-0.004	0.005	*0.464*	-0.005	0.003	*0.116*
YR13 * Percent Medicaid residents	-0.004	0.009	*0.628*	-0.001	0.003	*0.832*
YR14 * Percent Medicaid residents	-0.003	0.007	*0.653*	-0.004	0.003	*0.131*
YR15 * Percent Medicaid residents	-0.005	0.007	*0.488*	-0.003	0.003	*0.225*
YR11 * Percent Medicare residents	0.017	0.011	*0.137*	-0.007	0.005	*0.174*
YR13 * Percent Medicare residents	0.006	0.014	*0.663*	-0.005	0.005	*0.281*
YR14 * Percent Medicare residents	0.007	0.011	*0.525*	-0.006	0.006	*0.301*
YR15 * Percent Medicare residents	0.005	0.012	*0.690*	0.003	0.005	*0.491*

(continued)

Table D.3 (continued)
Complete Multivariate Regression Results of Potentially Avoidable Hospitalization Expenditure Outcomes, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Expenditures on potentially avoidable hospitalizations, first stage (logit)			Expenditures on potentially avoidable hospitalizations, second stage (GLM)		
Parameter	**β**	**SE**	***P***	**β**	**SE**	***P***
YR11 * Percent residents with advanced directives	-0.004	0.002	*0.080*	0.000	0.001	*0.725*
YR13 * Percent residents with advanced directives	-0.002	0.002	*0.400*	0.001	0.001	*0.121*
YR14 * Percent residents with advanced directives	-0.001	0.002	*0.692*	0.001	0.001	*0.474*
YR15 * Percent residents with advanced directives	0.001	0.002	*0.716*	0.002	0.001	*0.082*
YR11 * Alzheimer's unit in facility	-0.014	0.118	*0.906*	-0.071	0.068	*0.301*
YR13 * Alzheimer's unit in facility	-0.124	0.164	*0.448*	-0.007	0.068	*0.913*
YR14 * Alzheimer's unit in facility	0.022	0.169	*0.895*	-0.060	0.069	*0.386*
YR15 * Alzheimer's unit in facility	0.194	0.200	*0.330*	-0.132	0.079	*0.096*
Intercept	-2.399	0.793	*0.002*	9.246	0.269	*0.000*
N		40,709			7,623	

NOTES:

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included. [2]The interaction of HCC1 with each year was dropped from all models in all states because of model convergence issues.

Models of expenditure for a given type of service utilization (e.g., potentially avoidable hospitalizations) were estimated using two-part models, in which the first part regression used a logistic model and the second part used a generalized linear model (GLM) with the log link and Gamma distribution specified.

SOURCE: RTI analysis of Medicare claims data and MDS 3.0 resident assessment data (RTI programming references: MS04/ ms04_glm_exp, ms04_tpm_exp).

Table D.4
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(*P*-values in italics)

Parameter	Antipsychotic medication (potentially inappropriate)		
	β	**SE**	***P***
ECCP	0.034	0.105	*0.743*
ECCP * Year 11	-0.108	0.122	*0.375*
ECCP * Year 13	-0.230	0.123	*0.063*
ECCP * Year 14	-0.137	0.115	*0.235*
ECCP * Year 15	-0.174	0.138	*0.206*
Year 11	-0.273	0.536	*0.610*
Year 13	-0.593	0.719	*0.409*
Year 14	-1.642	0.633	*0.010*
Year 15	-1.578	0.788	*0.045*
Exposure (Initiative-related days) [1]	-0.004	0.003	*0.176*
Eligible due to no discharge plan (likely short-stay)	-0.572	0.156	*0.000*
Exposure (Initiative-related days)[1] * Eligible due to no discharge plan	0.042	0.013	*0.001*
Dual eligible (any episode month)	0.045	0.080	*0.572*
MA plan (any episode month)	-0.021	0.211	*0.921*
Male, < 65	0.244	0.210	*0.243*
Male, 65-69	0.129	0.257	*0.615*
Male, 70-74	0.106	0.238	*0.657*
Male, 75-79	-0.263	0.228	*0.249*
Male, 80-84	0.025	0.233	*0.914*
Male, 85-89	-0.102	0.239	*0.670*
Male, 90-94	-0.878	0.308	*0.004*
Male, 95+	-1.349	0.395	*0.001*
Female, < 65	0.311	0.214	*0.146*
Female, 70-74	-0.197	0.222	*0.376*
Female, 75-79	-0.073	0.214	*0.733*
Female, 80-84	-0.359	0.217	*0.098*
Female, 85-89	-0.614	0.198	*0.002*
Female, 90-94	-0.679	0.208	*0.001*
Female, 95+	-0.740	0.252	*0.003*
Black, non-Hispanic	-0.184	0.104	*0.078*
Other race/ethnicity	0.021	0.218	*0.924*
Dementia	1.054	0.093	*0.000*
Anemia	-0.066	0.065	*0.304*
Body Mass Index (BMI)	-0.004	0.005	*0.339*
ADL Score	0.000	0.007	*0.968*
Any hospice use in 2 months before episode period	-0.115	0.164	*0.482*
HCC 1[2]	-0.094	0.679	*0.890*
HCC 2	-0.090	0.145	*0.535*
HCC 7-10	-0.007	0.139	*0.957*

(continued)

Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Antipsychotic medication (potentially inappropriate)		
Parameter	**β**	**SE**	***P***
HCC 15, 16, 18	-0.141	0.088	*0.107*
HCC 19	-0.041	0.099	*0.678*
HCC 25-27	0.008	0.311	*0.980*
HCC 31	-0.287	0.177	*0.105*
HCC 32	0.095	0.222	*0.670*
HCC 33	-0.443	0.399	*0.267*
HCC 37	0.042	0.193	*0.826*
HCC 38	-0.248	0.160	*0.122*
HCC 44	-0.061	0.254	*0.811*
HCC 45	0.656	0.286	*0.022*
HCC 54	2.899	0.237	*0.000*
HCC 55	1.014	0.098	*0.000*
HCC 67, 68, 101	-0.563	0.234	*0.016*
HCC 69	-0.468	0.348	*0.179*
HCC 72	-1.065	0.280	*0.000*
HCC 74	0.159	0.090	*0.077*
HCC 75	0.223	0.347	*0.522*
HCC 77	0.193	0.408	*0.637*
HCC 79	0.071	0.108	*0.508*
HCC 80	-0.186	0.077	*0.016*
HCC 81	-0.287	0.275	*0.297*
HCC 82	-0.203	0.246	*0.409*
HCC 83	-0.102	0.131	*0.437*
HCC 92	0.072	0.102	*0.481*
HCC 96	-0.319	0.072	*0.000*
HCC 104, 105	-0.054	0.064	*0.399*
HCC 108	0.056	0.091	*0.538*
HCC 111, 112	0.002	0.160	*0.988*
HCC 119	-0.316	0.365	*0.387*
HCC 130	-0.302	0.318	*0.342*
HCC 131	0.039	0.075	*0.601*
HCC 148	-0.085	0.120	*0.480*
HCC 149	-0.109	0.141	*0.443*
HCC 157	-0.233	0.176	*0.186*
HCC 158	-0.075	0.120	*0.530*
HCC 164	-0.004	0.162	*0.979*
HCC 176	-0.318	0.218	*0.144*
Any PA/NP in facility	-0.022	0.114	*0.846*
RN staffing HPRD	-0.011	0.013	*0.411*

(continued)

Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

Parameter	Antipsychotic medication (potentially inappropriate)		
	β	**SE**	***P***
LPN staffing HPRD	-0.013	0.017	*0.458*
CNA staffing HPRD	-0.094	0.029	*0.001*
For-profit	0.090	0.117	*0.441*
Chain	-0.172	0.166	*0.300*
Percent Medicaid residents	0.001	0.005	*0.893*
Percent Medicare residents	0.003	0.008	*0.707*
Percent residents with advanced directives	0.000	0.001	*0.765*
Alzheimer's unit in facility	0.268	0.129	*0.038*
YR11 * Exposure (Initiative-related days) [1]	0.007	0.004	*0.080*
YR13 * Exposure (Initiative-related days) [1]	-0.002	0.004	*0.547*
YR14 * Exposure (Initiative-related days) [1]	-0.005	0.004	*0.210*
YR15 * Exposure (Initiative-related days) [1]	-0.013	0.003	*0.000*
YR11 * Eligible due to no discharge plan (likely short-stay)	0.295	0.203	*0.146*
YR13 * Eligible due to no discharge plan (likely short-stay)	0.142	0.246	*0.565*
YR14 * Eligible due to no discharge plan (likely short-stay)	0.283	0.215	*0.188*
YR15 * Eligible due to no discharge plan (likely short-stay)	0.303	0.187	*0.105*
YR11 * Eligible due to no discharge plan	-0.021	0.023	*0.363*
YR13 * Eligible due to no discharge plan	-0.009	0.021	*0.673*
YR14 * Eligible due to no discharge plan	-0.003	0.021	*0.888*
YR15 * Eligible due to no discharge plan	-0.001	0.022	*0.978*
YR11 * Dual eligible (any episode month)	-0.023	0.077	*0.768*
YR13 * Dual eligible (any episode month)	-0.073	0.091	*0.419*
YR14 * Dual eligible (any episode month)	0.009	0.120	*0.941*
YR15 * Dual eligible (any episode month)	-0.021	0.140	*0.882*
YR11 * MA plan (any episode month)	0.088	0.263	*0.738*
YR13 * MA plan (any episode month)	0.177	0.291	*0.543*
YR14 * MA plan (any episode month)	0.290	0.256	*0.257*
YR15 * MA plan (any episode month)	-0.170	0.290	*0.559*
YR11 * Male, < 65	-0.183	0.281	*0.515*
YR13 * Male, < 65	0.105	0.211	*0.618*
YR14 * Male, < 65	0.149	0.295	*0.614*
YR 15* Male, < 65	0.368	0.295	*0.212*
YR11 * Male, 65-69	-0.030	0.309	*0.923*
YR13 * Male, 65-69	0.115	0.284	*0.685*
YR14 * Male, 65-69	0.124	0.375	*0.741*
YR15 * Male, 65-69	-0.066	0.413	*0.873*

(continued)

Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Antipsychotic medication (potentially inappropriate)		
Parameter	**β**	**SE**	***P***
YR11 * Male, 70-74	-0.283	0.254	*0.265*
YR13 * Male, 70-74	-0.146	0.278	*0.600*
YR14 * Male, 70-74	-0.081	0.350	*0.817*
YR15 * Male, 70-74	0.171	0.299	*0.568*
YR11 * Male, 75-79	-0.156	0.238	*0.512*
YR13 * Male, 75-79	0.033	0.295	*0.912*
YR14 * Male, 75-79	-0.117	0.288	*0.683*
YR15 * Male, 75-79	0.036	0.289	*0.900*
YR11 * Male, 80-84	-0.119	0.248	*0.631*
YR13 * Male, 80-84	-0.267	0.253	*0.292*
YR14 * Male, 80-84	-0.065	0.302	*0.830*
YR15* Male, 80-84	-0.269	0.322	*0.404*
YR11 * Male, 85-89	-0.417	0.222	*0.060*
YR13 * Male, 85-89	-0.259	0.341	*0.447*
YR14 * Male, 85-89	-0.485	0.334	*0.146*
YR15 * Male, 85-89	-0.269	0.295	*0.362*
YR11 * Male, 90-94	-0.150	0.371	*0.686*
YR13 * Male, 90-94	-0.178	0.373	*0.634*
YR14 * Male, 90-94	0.256	0.424	*0.546*
YR15 * Male, 90-94	0.237	0.391	*0.544*
YR11 * Male, 95+	0.472	0.394	*0.231*
YR13 * Male, 95+	-0.548	0.659	*0.405*
YR14 * Male, 95+	0.554	0.587	*0.345*
YR15 * Male, 95+	0.680	0.454	*0.134*
YR11 * Female, < 65	0.075	0.262	*0.776*
YR13 * Female, < 65	-0.048	0.253	*0.849*
YR14 * Female, < 65	-0.274	0.345	*0.426*
YR15 * Female, < 65	0.055	0.325	*0.865*
YR11 * Female, 70-74	-0.104	0.243	*0.667*
YR13 * Female, 70-74	0.080	0.291	*0.783*
YR14 * Female, 70-74	0.447	0.316	*0.157*
YR15 * Female, 70-74	0.178	0.319	*0.577*
YR11 * Female, 75-79	-0.314	0.229	*0.170*
YR13 * Female, 75-79	0.059	0.277	*0.832*
YR14 * Female, 75-79	-0.127	0.277	*0.645*
YR15 * Female, 75-79	-0.140	0.257	*0.586*
YR11 * Female, 80-84	-0.194	0.229	*0.396*
YR13 * Female, 80-84	-0.091	0.273	*0.739*
YR14 * Female, 80-84	0.092	0.302	*0.760*
YR15 * Female, 80-84	0.005	0.279	*0.985*

(continued)

Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Antipsychotic medication (potentially inappropriate)		
Parameter	**β**	**SE**	***P***
YR11 * Female, 85-89	-0.185	0.221	*0.401*
YR13 * Female, 85-89	0.067	0.251	*0.789*
YR14 * Female, 85-89	0.266	0.263	*0.313*
YR15 * Female, 85-89	0.303	0.254	*0.232*
YR11 * Female, 90-94	-0.107	0.225	*0.635*
YR13 * Female, 90-94	-0.028	0.286	*0.923*
YR14 * Female, 90-94	0.045	0.306	*0.882*
YR15 * Female, 90-94	-0.028	0.294	*0.923*
YR11 * Female, 95+	-0.444	0.261	*0.088*
YR13 * Female, 95+	-0.458	0.302	*0.129*
YR14 * Female, 95+	-0.172	0.324	*0.596*
YR15 * Female, 95+	-0.457	0.354	*0.197*
YR11 * Black, non-Hispanic	-0.252	0.116	*0.030*
YR13 * Black, non-Hispanic	-0.259	0.124	*0.037*
YR14 * Black, non-Hispanic	-0.348	0.143	*0.015*
YR15 * Black, non-Hispanic	-0.312	0.156	*0.046*
YR11 * Other race/ethnicity	-0.205	0.237	*0.385*
YR13 * Other race/ethnicity	-0.083	0.242	*0.730*
YR14 * Other race/ethnicity	-0.041	0.257	*0.873*
YR15 * Other race/ethnicity	-0.319	0.217	*0.141*
YR11 * Dementia	0.082	0.062	*0.187*
YR13 * Dementia	0.045	0.099	*0.646*
YR14 * Dementia	-0.021	0.108	*0.843*
YR15 * Dementia	-0.006	0.120	*0.958*
YR11 * Anemia	-0.092	0.076	*0.230*
YR13 * Anemia	-0.060	0.098	*0.542*
YR14 * Anemia	-0.012	0.087	*0.889*
YR15 * Anemia	-0.098	0.111	*0.374*
YR11 * Body Mass Index (BMI)	-0.001	0.004	*0.844*
YR13 * Body Mass Index (BMI)	0.005	0.006	*0.384*
YR14 * Body Mass Index (BMI)	0.011	0.006	*0.048*
YR15 * Body Mass Index (BMI)	0.012	0.006	*0.037*
YR11 * ADL Score	-0.004	0.007	*0.540*
YR13 * ADL Score	-0.003	0.007	*0.678*
YR14 * ADL Score	-0.007	0.009	*0.413*
YR15 * ADL Score	-0.015	0.009	*0.108*

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Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

Parameter	Antipsychotic medication (potentially inappropriate)		
	β	**SE**	***P***
YR11 * Any hospice use in 2 months before episode period	-0.147	0.188	*0.433*
YR13 * Any hospice use in 2 months before episode period	0.007	0.184	*0.968*
YR14 * Any hospice use in 2 months before episode period	0.228	0.160	*0.153*
YR15 * Any hospice use in 2 months before episode period	0.399	0.213	*0.060*
YR11 * HCC 2	0.014	0.208	*0.947*
YR13 * HCC 2	0.073	0.222	*0.743*
YR14 * HCC 2	0.219	0.251	*0.382*
YR15 * HCC 2	-0.028	0.198	*0.887*
YR11 * HCC 7-10	-0.055	0.145	*0.705*
YR13 * HCC 7-10	-0.159	0.154	*0.300*
YR14 * HCC 7-10	-0.167	0.172	*0.331*
YR15 * HCC 7-10	-0.157	0.175	*0.368*
YR11 * HCC 15, 16, 18	-0.008	0.090	*0.926*
YR13 * HCC 15, 16, 18	0.003	0.116	*0.977*
YR14 * HCC 15, 16, 18	0.192	0.119	*0.107*
YR15 * HCC 15, 16, 18	0.152	0.147	*0.303*
YR11 * HCC 19	-0.080	0.102	*0.431*
YR13 * HCC 19	-0.090	0.100	*0.371*
YR14 * HCC 19	0.075	0.143	*0.602*
YR15 * HCC 19	0.079	0.137	*0.566*
YR11 * HCC 25-27	0.484	0.328	*0.139*
YR13 * HCC 25-27	-0.192	0.384	*0.618*
YR14 * HCC 25-27	-0.403	0.464	*0.385*
YR15 * HCC 25-27	-0.224	0.433	*0.604*
YR11 * HCC 31	0.211	0.234	*0.368*
YR13 * HCC 31	0.118	0.247	*0.634*
YR14 * HCC 31	-0.037	0.288	*0.897*
YR15 * HCC 31	0.517	0.288	*0.072*
YR11 * HCC 32	-0.340	0.297	*0.252*
YR13 * HCC 32	-0.467	0.319	*0.143*
YR14 * HCC 32	-0.040	0.322	*0.901*
YR15 * HCC 32	-0.634	0.277	*0.022*
YR11 * HCC 33	0.162	0.566	*0.775*
YR13 * HCC 33	0.645	0.586	*0.271*
YR14 * HCC 33	0.761	0.528	*0.150*
YR15 * HCC 33	1.298	0.548	*0.018*

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Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Antipsychotic medication (potentially inappropriate)		
Parameter	**β**	**SE**	***P***
YR11 * HCC 37	-0.278	0.305	*0.363*
YR13 * HCC 37	-0.455	0.338	*0.178*
YR14 * HCC 37	-0.263	0.294	*0.370*
YR15 * HCC 37	-0.381	0.300	*0.204*
YR11 * HCC 38	0.391	0.206	*0.057*
YR13 * HCC 38	0.450	0.187	*0.016*
YR14 * HCC 38	0.310	0.192	*0.106*
YR15 * HCC 38	0.218	0.256	*0.394*
YR11 * HCC 44	0.258	0.340	*0.449*
YR13 * HCC 44	0.257	0.395	*0.515*
YR14 * HCC 44	-0.419	0.446	*0.347*
YR15 * HCC 44	-0.200	0.468	*0.668*
YR11 * HCC 45	-1.279	0.542	*0.018*
YR13 * HCC 45	-0.763	0.417	*0.067*
YR14 * HCC 45	-0.494	0.428	*0.248*
YR15 * HCC 45	-0.130	0.376	*0.729*
YR11 * HCC 54	0.206	0.226	*0.363*
YR13 * HCC 54	0.086	0.190	*0.651*
YR14 * HCC 54	0.310	0.308	*0.314*
YR15 * HCC 54	0.033	0.275	*0.903*
YR11 * HCC 55	0.082	0.102	*0.425*
YR13 * HCC 55	-0.018	0.115	*0.876*
YR14 * HCC 55	0.126	0.123	*0.307*
YR15 * HCC 55	0.134	0.101	*0.185*
YR11 * HCC 67, 68, 101	0.493	0.293	*0.093*
YR13 * HCC 67, 68, 101	0.420	0.244	*0.086*
YR14 * HCC 67, 68, 101	0.233	0.316	*0.460*
YR15 * HCC 67, 68, 101	0.170	0.290	*0.559*
YR11 * HCC 69	0.737	0.385	*0.056*
YR13 * HCC 69	0.013	0.434	*0.976*
YR14 * HCC 69	-0.190	0.441	*0.666*
YR15 * HCC 69	0.223	0.479	*0.641*
YR11 * HCC 72	0.370	0.298	*0.214*
YR13 * HCC 72	-0.115	0.483	*0.812*
YR14 * HCC 72	-0.412	0.458	*0.369*
YR15 * HCC 72	0.712	0.371	*0.055*
YR11 * HCC 74	-0.171	0.100	*0.087*
YR13 * HCC 74	-0.166	0.120	*0.166*
YR14 * HCC 74	-0.197	0.121	*0.105*
YR15 * HCC 74	-0.140	0.164	*0.393*

(continued)

Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Antipsychotic medication (potentially inappropriate)		
Parameter	**β**	**SE**	***P***
YR11 * HCC 75	0.165	0.483	*0.733*
YR13 * HCC 75	0.854	0.392	*0.029*
YR14 * HCC 75	0.573	0.460	*0.212*
YR15 * HCC 75	-0.387	0.554	*0.485*
YR11 * HCC 77	-0.127	0.481	*0.792*
YR13 * HCC 77	0.316	0.607	*0.602*
YR14 * HCC 77	0.011	0.484	*0.981*
YR15 * HCC 77	-0.264	0.568	*0.641*
YR11 * HCC 79	-0.019	0.170	*0.909*
YR13 * HCC 79	-0.028	0.173	*0.872*
YR14 * HCC 79	-0.073	0.168	*0.664*
YR15 * HCC 79	-0.218	0.148	*0.142*
YR11 * HCC 80	0.109	0.103	*0.291*
YR13 * HCC 80	-0.009	0.096	*0.924*
YR14 * HCC 80	-0.035	0.129	*0.789*
YR15 * HCC 80	0.197	0.118	*0.096*
YR11 * HCC 81	0.251	0.347	*0.470*
YR13 * HCC 81	-0.043	0.340	*0.899*
YR14 * HCC 81	0.149	0.353	*0.674*
YR15 * HCC 81	0.150	0.381	*0.694*
YR11 * HCC 82	0.152	0.294	*0.606*
YR13 * HCC 82	-0.245	0.324	*0.451*
YR14 * HCC 82	0.311	0.351	*0.375*
YR15 * HCC 82	-0.022	0.326	*0.947*
YR11 * HCC 83	0.226	0.200	*0.258*
YR13 * HCC 83	0.299	0.178	*0.093*
YR14 * HCC 83	0.164	0.182	*0.370*
YR15 * HCC 83	-0.171	0.205	*0.404*
YR11 * HCC 92	-0.183	0.086	*0.033*
YR13 * HCC 92	-0.070	0.116	*0.545*
YR14 * HCC 92	-0.186	0.129	*0.151*
YR15 * HCC 92	-0.259	0.142	*0.067*
YR11 * HCC 96	0.166	0.107	*0.120*
YR13 * HCC 96	0.160	0.126	*0.202*
YR14 * HCC 96	0.136	0.135	*0.316*
YR15 * HCC 96	0.172	0.123	*0.162*
YR11 * HCC 104, 105	0.084	0.074	*0.258*
YR13 * HCC 104, 105	0.021	0.084	*0.801*
YR14 * HCC 104, 105	0.029	0.102	*0.773*
YR15 * HCC 104, 105	-0.021	0.115	*0.858*

(continued)

Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Antipsychotic medication (potentially inappropriate)		
Parameter	**β**	**SE**	***P***
YR11 * HCC 108	-0.060	0.107	*0.577*
YR13 * HCC 108	0.074	0.112	*0.508*
YR14 * HCC 108	-0.107	0.121	*0.379*
YR15 * HCC 108	0.014	0.122	*0.908*
YR11 * HCC 111, 112	-0.212	0.214	*0.323*
YR13 * HCC 111, 112	-0.143	0.265	*0.591*
YR14 * HCC 111, 112	0.071	0.209	*0.735*
YR15 * HCC 111, 112	0.076	0.251	*0.763*
YR11 * HCC 119	0.465	0.410	*0.257*
YR13 * HCC 119	0.228	0.498	*0.647*
YR14 * HCC 119	0.170	0.517	*0.742*
YR15 * HCC 119	-0.433	0.566	*0.445*
YR11 * HCC 130	0.062	0.327	*0.850*
YR13 * HCC 130	-0.204	0.325	*0.530*
YR14 * HCC 130	-0.307	0.421	*0.466*
YR15 * HCC 130	-0.301	0.387	*0.437*
YR11 * HCC 131	-0.064	0.109	*0.556*
YR13 * HCC 131	0.142	0.105	*0.177*
YR14 * HCC 131	-0.153	0.110	*0.162*
YR15 * HCC 131	0.017	0.110	*0.876*
YR11 * HCC 148	0.134	0.141	*0.343*
YR13 * HCC 148	-0.167	0.116	*0.150*
YR14 * HCC 148	-0.108	0.189	*0.567*
YR15 * HCC 148	-0.109	0.154	*0.479*
YR11 * HCC 149	0.066	0.188	*0.726*
YR13 * HCC 149	0.298	0.207	*0.151*
YR14 * HCC 149	-0.079	0.217	*0.716*
YR15 * HCC 149	-0.092	0.225	*0.683*
YR11 * HCC 157	0.112	0.234	*0.632*
YR13 * HCC 157	0.062	0.260	*0.813*
YR14 * HCC 157	0.366	0.313	*0.242*
YR15 * HCC 157	0.140	0.333	*0.674*
YR11 * HCC 158	0.015	0.157	*0.921*
YR13 * HCC 158	0.059	0.197	*0.762*
YR14 * HCC 158	-0.066	0.188	*0.724*
YR15 * HCC 158	-0.351	0.211	*0.096*
YR11 * HCC 164	-0.098	0.210	*0.641*
YR13 * HCC 164	0.018	0.191	*0.926*
YR14 * HCC 164	-0.258	0.233	*0.270*
YR15 * HCC 164	0.021	0.244	*0.933*

(continued)

Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Antipsychotic medication (potentially inappropriate)		
Parameter	**β**	**SE**	***P***
YR11 * HCC 176	0.268	0.268	*0.317*
YR13 * HCC 176	0.183	0.290	*0.527*
YR14 * HCC 176	0.301	0.301	*0.317*
YR15 * HCC 176	0.449	0.320	*0.161*
YR11 * Any PA/NP in facility	-0.144	0.117	*0.218*
YR13 * Any PA/NP in facility	-0.075	0.155	*0.629*
YR14 * Any PA/NP in facility	0.136	0.135	*0.312*
YR15 * Any PA/NP in facility	-0.003	0.207	*0.988*
YR11 * RN staffing HPRD	0.006	0.014	*0.668*
YR13 * RN staffing HPRD	-0.014	0.017	*0.413*
YR14 * RN staffing HPRD	0.013	0.018	*0.476*
YR15 * RN staffing HPRD	0.030	0.017	*0.078*
YR11 * LPN staffing HPRD	0.048	0.019	*0.013*
YR13 * LPN staffing HPRD	0.010	0.024	*0.679*
YR14 * LPN staffing HPRD	0.048	0.020	*0.015*
YR15 * LPN staffing HPRD	0.021	0.025	*0.401*
YR11 * CNA staffing HPRD	0.065	0.031	*0.040*
YR13 * CNA staffing HPRD	0.107	0.038	*0.005*
YR14 * CNA staffing HPRD	0.087	0.032	*0.007*
YR15 * CNA staffing HPRD	0.104	0.041	*0.012*
YR11 * For-profit	-0.065	0.120	*0.590*
YR13 * For-profit	-0.239	0.200	*0.232*
YR14 * For-profit	0.002	0.169	*0.992*
YR15 * For-profit	0.120	0.218	*0.580*
YR11 * Chain	0.100	0.181	*0.581*
YR13 * Chain	0.355	0.155	*0.022*
YR14 * Chain	0.183	0.198	*0.354*
YR15 * Chain	-0.012	0.294	*0.968*
YR11 * Percent Medicaid residents	0.007	0.006	*0.228*
YR13 * Percent Medicaid residents	0.006	0.007	*0.372*
YR14 * Percent Medicaid residents	0.013	0.005	*0.018*
YR15 * Percent Medicaid residents	0.020	0.008	*0.012*
YR11 * Percent Medicare residents	0.014	0.010	*0.160*
YR13 * Percent Medicare residents	0.010	0.011	*0.350*
YR14 * Percent Medicare residents	0.009	0.010	*0.364*
YR15 * Percent Medicare residents	0.016	0.014	*0.242*
YR11 * Percent residents with advanced directives	-0.004	0.002	*0.023*
YR13 * Percent residents with advanced directives	-0.002	0.002	*0.275*
YR14 * Percent residents with advanced directives	0.003	0.002	*0.072*
YR15 * Percent residents with advanced directives	0.000	0.002	*0.887*

(continued)

Table D.4 (continued)
Complete Multivariate Regression Results of Antipsychotic medication use, Indiana: estimated coefficients with standard errors and P-values
(P-values in italics)

	Antipsychotic medication (potentially inappropriate)		
Parameter	**β**	**SE**	***P***
YR11 * Alzheimer's unit in facility	-0.066	0.110	*0.549*
YR13 * Alzheimer's unit in facility	-0.198	0.129	*0.125*
YR14 * Alzheimer's unit in facility	-0.051	0.132	*0.697*
YR15 * Alzheimer's unit in facility	-0.048	0.170	*0.779*
Intercept	-1.606	0.545	*0.003*
N	37,842		

NOTES:

[1] Exposure (Initiative-related days) are measured in units of 10 days for inclusion in regression models; in count models the log of this variable is included. [2]The interaction of HCC1 with each year was dropped from all models in all states because of model convergence issues.

Models of quality measures (in the form of a proportion or percent of observed quarters per resident with the presence of an adverse quality outcome) were estimated using the GLM.

SOURCE: RTI analysis of Medicare claims data and MDS 3.0 resident assessment data (RTI programming references: JW15/ models_5years/qm)

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APPENDIX E
ESTIMATED REDUCTIONS OR INCREASES IN MEDICARE SPENDING AND UTILIZATION COUNTS: AGGREGATED SAVINGS OR COSTS

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E.1 Background and Purpose

In this appendix we extend the analysis of the effects of the Initiative presented in Section 2 of the main report to the aggregation of the effects on the entire ECCP eligible population in each state on Medicare spending and utilization counts. We also compute estimates of the net savings or cost of the Initiative when the payments associated with the grants to the ECCPs are accounted for. As in the main report, the data analyzed and reported here are for 2015.

In section E.2, we describe the methodology used to create the estimates of aggregate increases/reductions in Medicare spending and utilization counts. We present the spending estimate results in E.3, including total Medicare spending and subcategory spending for all-cause and potentially avoidable hospitalizations and emergency department (ED) visits, followed by estimated reductions or increases of utilization counts for the same outcomes. In E.4, we summarize some key findings and provide guidance on interpreting the results.

E.2 Methods

As described in Section 2.9.6 of the main report, we use marginal effects to estimate the average effect of the ECCP intervention on a specific outcome for an individual. The marginal effect is the average effect of the intervention on a utilization or spending outcome of interest. It is the difference in an outcome related to being in an ECCP group compared to being in a comparison group in 2015, accounting for differences observed in the base year, 2012, before the Initiative started. It is expressed in the units of interest, dollars or counts.

In order to aggregate reductions or increases in spending, we multiply each individual's average ECCP effect estimate and its 90% CI values by the number of ECCP participants in each state in 2015. This produces the ECCP population estimate of the intervention-associated total reduction or increase in spending, aggregated over all participants in each ECCP. For example, in ***Table E-1***, which examines total Medicare expenditure, the average intervention-associated effect on spending per participant in Alabama is $(548), which is described as "Average ECCP Effect on Spending: (Reduction)/Increase per Participant, 2015 - Estimate." The reduction is indicated by parentheses around the values which are negative. Multiplying this by "Number of ECCP Participants, 2015", or 3,266, produces the total value of $(1,788,703), under "Total ECCP Effect on Spending: (Reduction)/Increase, 2015 - Estimate." This represents the ECCP population estimate of the intervention-associated total reduction in spending. The corresponding 90% confidence intervals are calculated using the same method. Tables E-2 through E-5 calculate the intervention-associated reduction/increase in spending for a range of spending subcategories: expenditure for all-cause hospitalizations (***Table E-2***), expenditure for potentially avoidable hospitalizations (***Table E-3***), expenditure for all-cause ED visits (***Table E-4***), and expenditure for potentially avoidable ED visits (***Table E-5***).

For ***Table E-1*** only (on total Medicare expenditure), we also incorporate the "Total Grant for Initiative" for each ECCP, which is summed with the total intervention effect on spending to produce the "Total Initiative Net (Savings)/Costs." The total net savings/costs are calculated only for total Medicare expenditures, because it is the only outcome that can be compared with the total grant amounts for implementation. This estimate and its 90% CI values are presented in the last 3 columns of the table. For example, the "Total Grant for Initiative" in Alabama was

$3,701,206. Combined with a total Initiative-related effect of $(1,788,703), this leads to a total initiative net cost estimate of $1,912,503 for Alabama.

We also report net savings or costs across all ECCPs. In doing so, we present two types of total. Total (All) simply sums the results across all ECCPs. Total (statistically significant only) sums the ECCPs that have statistically significant marginal effects.

Tables E-6 through E-9 represent the equivalent calculation for total intervention associated reductions/increases on utilization count outcomes. The method is the same as for spending. The tables include the count of all-cause hospitalizations (***Table E-6***), count of potentially avoidable hospitalizations (***Table E-7***), count of all-cause ED visits (***Table E-8***), and count of potentially avoidable ED visits (***Table E-9***).

We must note that differences in the total effects across the ECCPs are a reflection of both the strength of average marginal effect per participant for each ECCP and the number of people in each ECCP group. A small effect over a large group of people can result in a large total that is not statistically significant.

E.3 Results

Table E-1 displays estimates of the intervention-associated effect on total Medicare expenditure. Six out of seven states (all except New York) show an average ECCP effect on spending in the desired direction, a reduction, while four states have a statistically significant effect at the participant level: Indiana, Missouri, Nevada, and Pennsylvania. After accounting for the grant amount, the Initiative is still estimated to have produced net savings in five out of the seven states (all except Alabama and New York). Nevada is the only state with a 90% confidence interval that covers only estimates of net cost reduction. The overall Initiative net, as a sum of all the states' Initiative net estimates, is a savings of $11,224,248, with a confidence interval ranging from loss to savings. Including only the four states with statistically significant ECCP effects on the individual level, the estimated Initiative net savings are $19,956,235, with a confidence interval indicating a range of net savings.

Table E-1
Total Medicare expenditure: ECCP-wide total estimates of intervention-associated reduction/increase, 2015
(Reductions in spending are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Participants, 2015	Average ECCP Effect on Spending: (Reduction)/Increase per Participant, 2015			Total ECCP Effect on Spending: (Reduction)/Increase, 2015			Total Grant for Initiative, 2015 $	Total Initiative Net (Savings)/Costs, 2015[a]		
		Estimate $	90% CI		Estimate $	90% CI			Estimate $	90% CI	
AL	3,266	(548)	(2,281)	1,185	(1,788,703)	(7,448,437)	3,871,031	3,701,206	1,912,503	(3,747,231)	7,572,237
IN***	2,790	(2,875)	(4,490)	(1,261)	(8,022,199)	(12,525,975)	(3,518,423)	3,580,893	(4,441,306)	(8,945,082)	62,470
MO**	2,296	(2,066)	(3,668)	(464)	(4,743,593)	(8,421,543)	(1,065,644)	3,955,699	(787,894)	(4,465,844)	2,890,055
NE	1,224	(2,010)	(4,063)	44	(2,459,940)	(4,973,556)	53,676	1,166,994	(1,292,946)	(3,806,562)	1,220,670
NV**	3,273	(5,086)	(8,611)	(1,562)	(16,647,502)	(28,184,121)	(5,110,884)	3,360,440	(13,287,062)	(24,823,681)	(1,750,444)
NY	6,790	452	(2,196)	3,099	3,065,902	(14,911,511)	21,043,315	5,046,528	8,112,430	(9,864,983)	26,089,843
PA**	2,540	(2,372)	(4,036)	(708)	(6,024,258)	(10,250,433)	(1,798,083)	4,584,285	(1,439,973)	(5,666,148)	2,786,202
TOTAL/ AVERAGE (All)[b]	**22,179**	**(1,651)**	**(2,705)**	**(597)**	**(36,620,293)**	**(59,993,433)**	**(13,247,153)**	**25,396,045**	**(11,224,248)**	**(34,597,388)**	**12,148,892**
TOTAL/ AVERAGE (statistically significant only: IN, MO, NV, PA)[b]	**10,899**	**(3,251)**	**(4,499)**	**(2,004)**	**(35,437,552)**	**(49,030,397)**	**(21,844,707)**	**15,481,317**	**(19,956,235)**	**(33,549,080)**	**(6,363,390)**

[a] Total Initiative Net (Savings)/Costs are the net balance between [Total ECCP Effect on Spending: (Reduction)/Increase] and [Total Grant for Initiative].

[b] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI program ms04; coeff_table_ms04_tpm_exp_jw.xlsx

The next four tables display the aggregate effect on spending for subcategories of Medicare expenditure. ***Table E-2*** delineates the ECCP-wide total estimates of the intervention effect on reductions or increase in Medicare expenditure for all-cause hospitalizations. All states show estimates of the ECCP effect on spending for all-cause hospitalizations in the desired direction. Four states show an intervention-associated statistically significant reduction in all-cause hospitalization expenditures: Indiana, Missouri, Nevada, and Pennsylvania. The total for all states is a reduction of $17,829,054 with an estimated total reduction for statistically significant states only of $15,490,543.

Table E-2
Medicare expenditure for all-cause hospitalizations: ECCP-wide total estimates of intervention-associated reduction/increase, 2015
(Reductions in spending are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Participants, 2015	Average ECCP Effect on Spending: (Reduction)/Increase per Participant, 2015			Total ECCP Effect on Spending: (Reduction)/Increase, 2015		
		Estimate $	90% CI		Estimate $	90% CI	
AL	3,266	(60)	(535)	416	(194,810)	(1,747,442)	1,357,821
IN***	2,790	(1,007)	(1,624)	(391)	(2,810,571)	(4,531,543)	(1,089,600)
MO***	2,296	(1,369)	(1,795)	(944)	(3,144,215)	(4,120,311)	(2,168,120)
NE	1,224	(550)	(1,139)	38	(673,719)	(1,394,029)	46,590
NV***	3,273	(2,248)	(3,298)	(1,199)	(7,358,803)	(10,793,105)	(3,924,500)
NY	6,790	(216)	(1,221)	788	(1,469,981)	(8,293,114)	5,353,152
PA***	2,540	(857)	(1,388)	(326)	(2,176,954)	(3,525,103)	(828,805)
TOTAL/AVERAGE (All)[a]	**22,179**	**(804)**	**(1,173)**	**(435)**	**(17,829,054)**	**(26,015,085)**	**(9,643,023)**
TOTAL/AVERAGE (statistically significant only: IN, MO, NV, PA)[a]	**10,899**	**(1,421)**	**(1,805)**	**(1,037)**	**(15,490,543)**	**(19,677,003)**	**(11,304,083)**

[a] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI program ms04; coeff_table_ms04_tpm_exp_jw.xlsx

In ***Table E-3***, we display the intervention-associated reductions or increases in Medicare expenditure for potentially avoidable hospitalizations. We see that for all states, the ECCP effect on spending is estimated in the desired direction, a reduction, and that in three states this effect is statistically significant: Indiana, Missouri, and Nevada. These three states also had statistically significant intervention-associated reductions for all-cause hospitalizations. Aggregated across all ECCPs, we see that the total of estimated intervention-associated reductions in Medicare expenditure for potentially avoidable hospitalizations is $6,639,969. The total for statistically significant ECCPs only is a reduction of $4,206,360.

Table E-3
Medicare expenditure for potentially avoidable hospitalizations: ECCP-wide total estimates of intervention-associated reduction/increase, 2015
(Reductions in spending are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Residents, 2015	Average ECCP Effect on Spending: (Reduction)/Increase per Participant, 2015			TOTAL ECCP Effect on Spending: (Reduction)/Increase, 2015		
		Estimate $	90% CI		Estimate $	90% CI	
AL	3,266	(98)	(309)	113	(319,079)	(1,008,719)	370,561
IN**	2,790	(408)	(674)	(141)	(1,137,175)	(1,880,767)	(393,584)
MO***	2,296	(577)	(787)	(366)	(1,324,082)	(1,807,646)	(840,519)
NE	1,224	(115)	(466)	237	(140,307)	(570,353)	289,739
NV**	3,273	(533)	(891)	(175)	(1,745,102)	(2,916,575)	(573,630)
NY	6,790	(212)	(555)	131	(1,441,166)	(3,769,508)	887,176
PA	2,540	(210)	(512)	92	(533,057)	(1,299,358)	233,244
TOTAL/AVERAGE (All)[a]	**22,179**	**(299)**	**(433)**	**(165)**	**(6,639,969)**	**(9,611,172)**	**(3,668,766)**
TOTAL/AVERAGE (statistically significant only: IN, MO, NV)[a]	**8,359**	**(503)**	**(679)**	**(327)**	**(4,206,360)**	**(5,675,751)**	**(2,736,969)**

[a] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI program ms04; coeff_table_ms04_tpm_exp_jw.xlsx.

Table E-4 displays the effect of the Initiative on Medicare expenditure for all-cause ED visits. A reduction in ED visit expenditures was estimated in five out of seven states. A statistically significant reduction was estimated in Alabama, Missouri, and Pennsylvania while a statistically significant increase was estimated in Nebraska and Nevada. The total for all states is a reduction of $81,251, and for statistically significant states only, it is an estimated total increase of $8,215; for each, the confidence interval encompasses both net savings and costs.

Table E-4
Medicare expenditure for all-cause ED visits: ECCP-wide total estimates of intervention-associated reduction/increase, 2015
(Reductions in spending are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Participants, 2015	Average ECCP Effect on Spending: (Reduction)/Increase per Participant, 2015			TOTAL ECCP Effect on Spending: (Reduction)/Increase, 2015		
		Estimate $	90% CI		Estimate $	90% CI	
AL***	3,266	(40)	(62)	(18)	(130,766)	(201,434)	(60,098)
IN	2,790	(16)	(51)	19	(44,314)	(142,382)	53,753
MO***	2,296	(86)	(113)	(58)	(196,723)	(259,792)	(133,654)
NE*	1,224	97	15	180	118,822	17,885	219,759
NV*	3,273	93	12	175	305,003	38,626	571,380
NY	6,790	(7)	(23)	10	(45,151)	(158,201)	67,898
PA**	2,540	(35)	(61)	(8)	(88,121)	(155,780)	(20,463)
TOTAL/AVERAGE (All)[a]	**22,179**	**(4)**	**(19)**	**12**	**(81,251)**	**(423,438)**	**260,935**
TOTAL/AVERAGE (statistically significant only: AL, MO, NE, NV, PA)[a]	**12,599**	**1**	**(24)**	**25**	**8,215**	**(299,510)**	**315,939**

[a] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI program ms04; coeff_table_ms04_tpm_exp_jw.xlsx

Table E-5 displays the intervention-associated reduction/increase in our last subcategory of Medicare expenditures, potentially avoidable ED visits. As with all-cause ED visits, a reduction in potentially avoidable ED visit expenditures was estimated in five out of seven states. A statistically significant reduction was estimated in Indiana, Missouri, and Pennsylvania. The total for all states is a reduction of $22,427 (with a confidence interval encompassing both savings and loss), and for statistically significant states only, it is an estimated total reduction of $168,452 (with a confidence interval including only savings).

Table E-5
Medicare expenditure for potentially avoidable ED visits: ECCP-wide total estimates of intervention-associated reduction/increase, 2015
(Reductions in spending are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Participants, 2015	Average ECCP Effect on Spending: (Reduction)/Increase per Participant, 2015			TOTAL ECCP Effect on Spending: (Reduction)/Increase, 2015		
		Estimate $	90% CI		Estimate $	90% CI	
AL	3,266	(11)	(22)	0	(36,102)	(72,552)	349
IN***	2,790	(21)	(33)	(8)	(57,230)	(92,989)	(21,471)
MO***	2,296	(29)	(41)	(17)	(66,609)	(93,577)	(39,640)
NE	1,224	48	0	96	58,800	(125)	117,725
NV	3,273	45	(1)	92	148,799	(4,207)	301,806
NY	6,790	(4)	(11)	4	(25,471)	(75,924)	24,982
PA***	2,540	(18)	(27)	(8)	(44,613)	(68,670)	(20,557)
TOTAL/AVERAGE (All)[a]	**22,179**	**(1)**	**(9)**	**7**	**(22,427)**	**(205,025)**	**160,171**
TOTAL/AVERAGE (statistically significant only: IN, MO, PA)[a]	**7,626**	**(22)**	**(29)**	**(15)**	**(168,452)**	**(219,293)**	**(117,612)**

[a] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI program ms04; coeff_table_ms04_tpm_exp_jw.xlsx.

The next set of analyses are similar and aggregate estimates of ECCP intervention-associated reductions or increases in utilization counts. Note there here, the number of ECCP participants is slightly higher than in the previous expenditure analysis because in the expenditure analysis, we excluded those with zero total Medicare expenditures. ***Table E-6*** presents the average and total ECCP effect on the count of all-cause hospitalizations. In all seven states, the estimated ECCP effect on the count of all-cause hospitalizations in the desired direction, a reduction. Three states exhibit a statistically significant reduction in all-cause hospitalizations: Indiana, Missouri, and Nevada. Aggregated across all ECCPs, we see the total

effect for all the states is a reduction of 1,675 all-cause hospitalizations, with the 90% confidence interval covering only reductions. There is an estimated reduction of 1,171 all-cause hospitalizations in statistically significant states only, with the 90% confidence interval including only reductions.

Table E-6
Count of all-cause hospitalizations: Aggregate estimates of ECCP intervention-associated reductions/increases, 2015
(Reductions in counts are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Participants, 2015	Average ECCP Effect (Reduction/Increase) per Participant, 2015			Total ECCP Effect on counts: (Reduction)/Increase, 2015		
		Estimate	90% CI		Estimate $	90% CI	
AL	3,282	(0.039)	(0.084)	0.006	(129)	(277)	19
IN**	2,809	(0.095)	(0.157)	(0.033)	(268)	(442)	(93)
MO***	2,317	(0.172)	(0.216)	(0.128)	(398)	(500)	(296)
NE	1,238	(0.013)	(0.066)	0.040	(16)	(82)	50
NV***	3,354	(0.151)	(0.207)	(0.094)	(505)	(695)	(316)
NY	6,859	(0.039)	(0.094)	0.015	(270)	(645)	104
PA	2,583	(0.034)	(0.098)	0.030	(88)	(253)	78
TOTAL/AVERAGE (All)[a]	**22,442**	**(0.075)**	**(0.098)**	**(0.051)**	**(1,675)**	**(2,195)**	**(1,154)**
Total/Average (statistically significant only: IN, MO, NV)[a]	**8,480**	**(0.138)**	**(0.171)**	**(0.105)**	**(1,171)**	**(1,448)**	**(894)**

[a] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI Program ms03, coeff_table_ms03_count_util_jw

Table E-7 indicates that in all seven states, the estimated ECCP effect on the count of potentially avoidable hospitalization is in the desired direction, a reduction. Four of the seven states exhibit statistically significant reductions in potentially avoidable hospitalizations: Alabama, Indiana, Missouri, and New York. Aggregated across all ECCPs, we see the total effect for all the states is a reduction of 804 potentially avoidable hospitalizations. There is a reduction of 635 potentially avoidable hospitalizations in the statistically significant states.

Table E-7
Count of potentially avoidable hospitalizations: Aggregate estimates of ECCP intervention-associated reductions/increases, 2015
(Reductions in counts are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Participants, 2015	Average ECCP Effect (Reduction/Increase) per Participant, 2015			Total ECCP Effect on counts: (Reduction)/Increase, 2015		
		Estimate	90% CI		Estimate	90% CI	
AL*	3,282	(0.027)	(0.052)	(0.003)	(90)	(170)	(9)
IN***	2,809	(0.055)	(0.082)	(0.028)	(155)	(231)	(80)
MO***	2,317	(0.093)	(0.117)	(0.068)	(215)	(272)	(158)
NE	1,238	(0.008)	(0.044)	0.028	(10)	(54)	35
NV	3,354	(0.027)	(0.057)	0.003	(92)	(192)	9
NY*	6,859	(0.025)	(0.049)	(0.002)	(174)	(338)	(11)
PA	2,583	(0.026)	(0.060)	0.007	(68)	(154)	18
TOTAL/AVERAGE (All)[a]	**22,442**	**(0.036)**	**(0.047)**	**(0.025)**	**(804)**	**(1,052)**	**(555)**
Total/Average (statistically significant only: AL, IN, MO, NY)[a]	**15,267**	**(0.042)**	**(0.055)**	**(0.028)**	**(635)**	**(840)**	**(429)**

[a] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI Program ms03, coeff_table_ms03_count_util_jw

Table E-8 indicates that in six out of seven states, the estimated ECCP effect on the count of all-cause ED visits is in the desired direction, a reduction. Two of the states exhibit statistically significant reductions in all-cause ED visits: Alabama and Missouri. Aggregated across all ECCPs, the total effect for all the states is a reduction of 898 all-cause ED visits. There is a reduction of 726 all-cause ED visits in the statistically significant states.

Table E-8
Count of all-cause ED visits: Aggregate estimates of ECCP intervention-associated reductions/increases, 2015
(Reductions in counts are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Participants, 2015	Average ECCP Effect (Reduction/Increase) per Participant, 2015			Total ECCP Effect on counts: (Reduction)/Increase, 2015		
		Estimate	90% CI		Estimate	90% CI	
AL***	3,282	(0.108)	(0.154)	(0.062)	(354)	(504)	(204)
IN	2,809	(0.028)	(0.111)	0.055	(79)	(311)	153
MO***	2,317	(0.161)	(0.206)	(0.115)	(373)	(478)	(267)
NE	1,238	(0.009)	(0.085)	0.067	(11)	(105)	83
NV	3,354	0.010	(0.038)	0.059	35	(128)	198
NY	6,859	(0.014)	(0.044)	0.017	(93)	(300)	115
PA	2,583	(0.009)	(0.067)	0.048	(24)	(172)	125
TOTAL/AVERAGE (All)[a]	**22,442**	**(0.040)**	**(0.059)**	**(0.021)**	**(898)**	**(1,331)**	**(464)**
Total/Average (statistically significant only: AL, MO)[a]	**5,599**	**(0.130)**	**(0.163)**	**(0.097)**	**(726)**	**(910)**	**(543)**

[a] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI Program ms03, coeff_table_ms03_count_util_jw

Table E-9 indicates that in five out of seven states, the estimated ECCP effect on the count of potentially avoidable ED visits is in the desired direction, a reduction. Two of the states exhibit statistically significant reductions in potentially avoidable ED visits: Alabama and Missouri. Aggregated across all ECCPs, we see the total effect for all the states is a reduction of 358 potentially avoidable ED visits. There is a reduction of 240 potentially avoidable ED visits in the statistically significant states.

Table E-9
Count of potentially avoidable ED visits: Aggregate estimates of ECCP intervention-associated reductions/increases, 2015
(Reductions in counts are indicated by negative quantities in parentheses)

ECCP	Number of ECCP Participants, 2015	Average ECCP Effect (Reduction/Increase) per Participant, 2015			Total ECCP Effect on counts: (Reduction)/Increase, 2015		
		Estimate	90% CI		Estimate	90% CI	
AL***	3,282	(0.034)	(0.054)	(0.013)	(110)	(177)	(42)
IN	2,809	(0.026)	(0.056)	0.003	(74)	(157)	9
MO***	2,317	(0.056)	(0.073)	(0.039)	(130)	(169)	(90)
NE	1,238	0.013	(0.027)	0.052	16	(34)	65
NV	3,354	0.003	(0.021)	0.027	9	(72)	89
NY	6,859	(0.005)	(0.015)	0.006	(33)	(106)	40
PA	2,583	(0.014)	(0.034)	0.007	(35)	(88)	17
TOTAL/AVERAGE (All)[a]	**22,442**	**(0.016)**	**(0.024)**	**(0.008)**	**(358)**	**(531)**	**(184)**
Total/Average (statistically significant only: AL, MO)[a]	**5,599**	**(0.043)**	**(0.057)**	**(0.029)**	**(240)**	**(318)**	**(162)**

[a] The estimated effects shown in this row are weighted averages based on the number of ECCP participants. The standard error for the average effect is calculated based on the assumption that the covariance for the different state effects is 0.

Statistical significance (for average ECCP effect on spending per participant): * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$, else not significant ($p \geq 0.10$).

SOURCES: RTI Program ms03, coeff_table_ms03_count_util_jw

E.4 Summary

These totals are presented in addition to the estimates of the Initiative effects reported in Section 2 of the main report. The strength of the interventions is best indicated with the marginal effects reported there and repeated in these tables. Comparing total effects on spending and counts across ECCPs combines the magnitude of the effects with the number of participants in each ECCP, sometimes producing large totals but with wide uncertainties, reflecting the poor significance level of the estimated Initiative effects. This must be considered in drawing conclusions from these tables.