ONLINE APPENDIX

From the paper:

THE WAR ON POVERTY'S EXPERIMENT IN PUBLIC MEDICINE: COMMUNITY HEALTH CENTERS AND THE MORTALITY OF OLDER AMERICANS

Martha J. Bailey and Andrew Goodman-Bacon

ONLINE APPENDIX A: DATA APPENDIX

From the paper:

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COMMUNITY HEALTH CENTERS AND THE MORTALITY OF OLDER AMERICANS

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1. Community Health Center Data

Data on CHC grants are taken from the NACAP files and PHS reports and are validated using primary source materials (OEO 1966, OEO 1967, OEO 1968, DHEW 1972a, DHEW 1972b, Zwick 1972, GAO 1973, Health Services Administration 1974, Rudd et al. 1976). We first use the published information on CHCs in the primary source documents to identify grants in the NACAP and PHS data that fund CHCs. Second, we drop grant observations which are listed as "planning grants" either in the datasets or in the primary source materials. The remaining grants are used to construct the year in which a county *first* received a CHC program.

The ability to cross-check the electronic grant data with primary source materials is essential to assign start dates accurately. Unfortunately, the necessary primary source materials do not exist to do this after 1975, partly *because* many health centers were funded under the "Rural Health Initiative" which (only periodically) printed directories. We do observe annual grants to "Community Health Centers, HAS" from 1978-1980 in the National Archives Federal Outlays dataset, but we do not know which of those grants are *first* grants. Thus, in the analysis with all grantees between 1965 and 1980 we assign later-funded counties a start date of the first grant we actually observe. This could be up to 5 years too late (for centers actually funded in 1975 and not re-funded until 1980), which is why mismeasurement of start dates for this period could contribute to the weaker estimates for the effects of later centers.

2. Mortality Data

We construct mortality rates using Multiple Cause of Death (MCD) files (US DHHS 2007) for all years except 1981 and 1982, because the MCD files contain a 50% sample of deaths for some states in these years. For 1981 and 1982, we instead use the Mortality Detail files. The 1972 MCD file (and Mortality Detail file) contains a 50% sample of deaths for all states, so we multiply death counts by two in this year. All mortality rates are based on county of *residence* of the decedent. We do not include information on decedents who live outside the continental United States, and the publicly available mortality files exclude foreign military deaths. For 1964, records for approximately 6,000 deaths in Massachusetts are not recorded in the Vital Statistics data. This affects all counties in Massachusetts.

The age-specific mortality rate, $ASMR_{ta}$, in year t is the count of deaths for age group a (50–54, 55–59,…, 75–79, 80–84, and 85+) divided by the population in age group a in year t per 100,000. The age-adjusted mortality rate in year t is a weighted sum of age-specific mortality rates, $AMR_t = \sum_{a=1}^{8} s_a ASMR_{ta}$, where s_a is the 1960 national population share of age group a (among those 50 and older). Denominators for these rates were constructed by linearly interpolating population between the 1950 and 1960 censuses (Haines and ICPSR 2005) and the 1969 to 1988 Surveillance Epidemiology and End Results (SEER 2009) data. The age-group-specific mortality rates used in this analysis are age-adjusted by 5-year groups. "Age adjusting" (holding s_a fixed) means that changes in mortality rates reflect changes in the likelihood of dying rather than changes in population age structure. Diseases of the heart and other cardiovascular disease constitute "major cardiovascular disease" (CVD). We include general arteriosclerosis in "diseases of the heart."

The causes of death used in table 5 and figure B1 are based on the 33/34 cause recodes generated by NCHS. This recode as well as 3-digit International Cause of Death (ICD) codes used to define the causes examined in this paper are shown in table A1. There are two ICD revisions between 1959 and 1988, and

they are incorporated into the mortality data in 1968 (7^{th} Revision to 8^{th} Revision) and 1979 (8^{th} Revision to 9^{th} Revision). Age-adjusted rates for these causes trend smoothly through the 1968 and 1979 ICD revisions. Note that the causes of death we consider are not comprehensive.

Table A1. ICD Code Groups

34 Cause Recode	1959-1967 (ICD 7)	1968-1978 (ICD 8)	1979-1988 (ICD 9)	Recode
10	1-19	10-19	10-18	Infectious Disease
20	20-29	90-97	90-97	Infectious Disease
30	30-138	Remainder of 0-136	1-9, 20-88, 98-139	Infectious Disease
50	150-159	150-159	150-159	Cancer
60	160-164	160-163	160-165	Cancer
70	170	174	174-175	Cancer
80	171-179	180-187	179-187	Cancer
90	180-181	188-189	188-189	Cancer
100	204	204-207	204-208	Cancer
110	140-148 190-203 165 205	140-149, 170-173, 190-203, 208, 209	140-149, 170-173, 190-203	Cancer
120	260	250	250	Diabetes
150	400-402 410-416	390-398	390-398	Diseases of the Heart
160	440-443	402, 404	402-404	Diseases of the Heart
170	420	410-413	410-414	Diseases of the Heart
180	421-434	420-429	415-429	Diseases of the Heart
190	444-447	400, 401, 403	401, 403	Diseases of the Heart
200	330-334	430-438	430-438	Other CVD
210	450	440	440	Diseases of the Heart
220	451-468	441-448	441-448	Other CVD
230	480-493	470-474, 480-486	480-487	Infectious Disease
330	810-835	810-825	810-825	Accidents
340	800-802 840-962	800-807, 825-949	800-807, 826-949	Accidents
370	990-999 965	980-999	980-999	Accidents

3. Surveys of Health Services Utilization and Expenditure 1963 and 1970

These data are part of a series of nationally representative health surveys conducted by the National Opinion Research Center (NORC), and are made available by ICPSR. The 1963 data (7,782 respondents) are meant to be representative of the non-institutionalized population of the continental United States (no weights are provided), and the 1970 data (11,619 respondents) oversampled the urban poor, the aged and rural families (sample weights are provided). Information on utilization and payments are verified with the providers whenever possible. The sample sizes of older adults are 1,684 in 1963 and 3,059 in 1970.

Geocodes

The publicly available versions do not contain geographic identifiers (see Finkelstein and McKnight 2008), but we obtained restricted identifiers for the primary sampling units (PSUs) and segments (sub-PSU-level sampling areas). Segments (defined in the data in 1970 only) generally correspond to towns, several of which make up a PSU (defined in both survey years). We use a PSU-level CHC treatment variable. In 1970, we match each segment to a county, merge the county to our CHC treatment dates, and define a PSU as treated if any portion of it in 1970 was in a county that had a CHC by 1970.

Variables

The variable numbers and questions used to construct the outcome variables in table 5 are shown below in table A2. Respondents were interviewed in 1964 and 1971 about their health care use and expenditures in calendar years 1963 and 1970. The questionnaire for 'other' clinic visits in 1970 specifically prompts respondents to answer if they visited a "neighborhood health center", although this detail is not included in the computerized documentation for that question.

Weights

The 1963 SHSUE survey was a flat sample and so no weighting is necessary. The 1970 survey, however, oversampled nonwhites, the elderly and the urban poor and also estimated post-stratification weights to match the race, SMSA status, family size and income distribution in the 1970 March Current Population Survey. However, looking at the summary statistics of the weights reveals that the printed weights in the codebook do not match the weights in the data. Finkelstein and McKnight (2008) note this problem and choose not to use weights in their estimation.

We discovered that the problem is not with the data but with the documentation provided by ICPSR, which lists the incorrect starting column for the "final weight". In the ICPSR documentation, the weight is listed as a 7-digit variable beginning in column 14, but the original source materials for the SHSUE note that the "final weight" is listed as beginning in column 15. If we use the original source documentation and read the final weight in as a 6-digit variable beginning in column 15, we are able to generate a "final weight" that matches the documentation as follows. The final weight is the product of the preliminary weight (question 33), which reflects sample design, and a post-stratification weight, which reflects non-response. The original documentation contains a tabulation of the post-stratification weight (see Note 2). To check the accuracy of our modified final weight, we divide it by the (correct) preliminary sampling weights and adjust the result to match the printed format of the post-stratification weight in Note 2 (`%5.3f`). The results (in table A3) show that we can replicate the post-stratification sampling weights listed in the documentation, which means that the final weight based on our modification of the ICPSR dictionary is correct. We use this "final weight" in the SHSUE results

presented throughout the paper. Unweighted results are presented in appendix table F5 for the interested reader.

Table A2. SHSUE Questions Used in Table 5 and in Text

Variable	1963	1970
Regular Source of Care	IS THERE A PARTICULAR MEDICAL PERSON OR CLINIC YOU (PERSON) USUALLY GO(ES) TO WHEN SICK OR OR ADVICE ABOUT HEALTH? (Q129)	SOURCE OF REGULAR MEDICAL CARE (Q 130)
Prescription Drug Expenditures	EXPENDITURES - PRESCRIBED DRUG (Q123)	TOTAL PAYMENTS FOR PRESCRIPTION DRUGS. (Best Estimate Data, Q406)
Out-of-Pocket Prescription Drug Expenditures	Total Expenditures (Q123) - Insurance Expenditures (Q108)	OUT-OF-POCKET PAYMENTS FOR PRESCRIPTION DRUGS (Q 405)
Total Visits	Sum of OB and Non-OB Doctor Office, Nurse Office, Home Visits, Hospital Visits and Hospital Admissions (Q5 - Q17)	OB and Non-OB MD Visits + OB and Non-OB Hospital Admissions (Q308, Q316, Q318 and Q319)
Saw a Physician Last Year	SAW PHYSICIAN OR NOT (Q 132)	DID (PERSON) SEE PHYSICIAN? (Q 301)
'Other' Clinic Use		TOTAL NUMBER OF VISITS TO OTHER CLINIC (E.G., PUBLIC HEALTH CLINIC) (Social Service Data, Q171)

Table A3. Reconstructed 1970 SHSUE Weights

RACE	RESIDENCE	FAMILY SIZE	HOUSEHOLD INCOME	PRINTED DOCUMENTATION POST-STRATIFICATION WEIGHT	Bailey-Goodman-Bacon Constructed Post-stratification weights
NONWHITE	SMSA	2+	$3000+	0.6	0.6
NONWHITE	SMSA	1	$3000+	0.714	0.714
NONWHITE	SMSA	2+	UNDER $3000	0.714	0.714
WHITE	NONSMSA	2+	$3000-14999	0.75	0.75
NONWHITE	NONSMSA	2+		0.917	0.917
WHITE	NONSMSA	1		0.967	0.967
NONWHITE	NONSMSA	1		1	1
WHITE	NONSMSA	2+	UNDER $3000	1.08	1.08

WHITE	SMSA	2+	UNDER $3000	1.136	1.136
WHITE	NONSMSA	2+	$15000+	1.147	1.147
WHITE	SMSA	2+	$3000-14999	1.16	1.16
NONWHITE	SMSA	2+	$15000+	1.167	1.167
WHITE	SMSA	2+	$15000+	1.181	1.181
WHITE	SMSA	1	$3000+	1.191	1.191
NONWHITE	SMSA	1	UNDER $3000	1.2	1.2
WHITE	SMSA	1	UNDER $3000	1.622	1.622

4. Medicare Utilization

Figure 8 relies on newly entered county-level information from Medicare reports (US SSA 1969-1977; US HFA 1978-1980) and the Area Resource File (US DHHS 1994). The data on Medicare enrollment and use is from the following sources:

United States Social Security Administration (US SSA), Office of Research and Statistics. (1969). Health insurance for the Aged and Disabled, 1966 and 1967. Section 1.1: Reimbursement by State and County, Washington DC.

----- (1970). Health insurance for the Aged and Disabled, 1968. Section 1.1: Reimbursement by State and County, Washington DC.

----- (1971). Health insurance for the Aged and Disabled, 1969. Section 1.1: Reimbursement by State and County, Washington DC.

-----. (1973). Health insurance for the Aged and Disabled, 1970. Section 1.1: Reimbursement by State and County, Washington DC.

-----. (1973). Health insurance for the Aged and Disabled, 1971. Section 1.1: Reimbursement by State and County, Washington DC.

----- (1975). Health insurance for the Aged and Disabled, 1972. Section 1.1: Reimbursement by State and County, Washington DC.

----- (1977). Health insurance for the Aged and Disabled, 1974 and 1975. Section 1.1: Reimbursement by State and County, Washington DC.

United States Health Care Financing Administration (US HFA), Office of Policy Planning, and Research. (1978). Medicare: Health Insurance for the Aged and Disabled, 1976. Section 1.1: Reimbursement by State and County, Washington DC.

-----. (1978). Medicare: Health Insurance for the Aged and Disabled, 1977. Section 1.1: Reimbursement by State and County, Washington DC.

-----. (1980). Medicare: Health Insurance for the Aged and Disabled, 1978 and 1979. Section 1.1: Reimbursement by State and County, Washington DC.

County Codes

We re-combine all counties that split or merge after 1959. Using Forstall (1995), we make the changes noted below (not all county changes are assigned a year, and these instances contain a "-" below).

Table A4. Non-Virginia County Code Changes

stfips	new_cofips	old_cofips	year	note
4	12	27	1983	La Paz County, AZ split off from Yuma county in 1983.
13	510	215	1971	The city of Columbus, GA became a consolidated city-county in 1971. Previously part of Muscogee (stfips==215).
29	186	193	-	Ste. Genevieve county, MO changed codes. Always changed to 186.
32	510	25	1969	Ormsby County (25) became Carson City (510) in 1969.
35	6	61	1981	Cibola County, NM split off from Valencia County in 1981.
46	71	131	1979	Washabaugh County was annexed to Jackson County in 1979.
55	78	83, 115	1961	Menominee split off from Shawano and Oconto Counties.

Table A5. Virginia County Code Changes

stfips	new_cofips	old_cofips	year	note
51	83	780	1995	South Boston City rejoins Halifax County.
51	510	13	-	Alexandria City//Arlington County
51	515	19	1968	Bedford City splits from Bedford County.
51	520	191	-	Bristol City//Washington County
51	530	163	-	Buena Vista City//Rockbridge County
51	540	3	-	Charlottesville City//Albemarle County.
51	550	129	1963	Norfolk County merges (w/ South Norfolk City) to form Chesapeake City.
51	550	785	1963	South Norfolk City merges (w/ Norfolk County) to form Chesapeake City.
51	560	75	-	Clifton Forge City//Alleghany County.
51	590	143	-	Danville City//Pittsylvania County.
51	595	81	1967	Emporia City splits from Greenville County.
51	600	59	1961	Fairfax City splits from Fairfax County.
51	620	175	1961	Franklin City splits from Southampton County.
51	630	177	-	Fredericksburg City//Spotsylvania County.
51	660	165	-	Harrisonburg City//Rockingham County.
51	670	149	-	Hopewell City//Prince George County.
51	678	163	1966	Lexington City splits from Rockbridge County.
51	680	31	-	Lynchburg City//Campbell County.
51	683	153	1975	Manassas City splits from Prince William County.
51	685	153	1975	Manassas Park City splits from Prince William County.
51	690	89	-	Martinsville City//Henry County.
51	710		-	Norfolk City came from Norfolk County, which was ultimately combined into Chesapeake City. Census notes that Norfolk, Portsmouth, and

				Chesapeake cities (and including Norfolk and South Norfolk Counties before 1963) are often combined into one group.
51	730	53	-	Petersburg City//Dinwiddie County.
51	735	199	1975	Poquoson City splits from York County.
51	740		-	Portsmouth City came from Norfolk County before it was Chesapeake City.
51	750	121	-	Radford City//Montgomery County.
51	770	161	-	Roanoke City//Roanoke County.
51	775	161	1968	Salem City splits from Roanoke County.
51	780	83	1960	South Boston City splits from Halifax County.
51	790	15	-	Staunton City//Augusta County.
51	800	123	1974	Nansemond County merges into Suffolk City.
51	810	151	1963	The rest of Princess Anne County merges into Virginia Beach City.
51	840	69	-	Winchester City//Frederick County.

We further make county changes necessary to use the SEER population data. These changes can be found here: http://seer.cancer.gov/popdata/methods.html.

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ONLINE APPENDIX B: HEALTH CENTER ACTIVITIES AND SERVICES

From the paper:
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Appendix Table B1. Services Provided by Neighborhood Health Centers as of September 1973

	Services per Person per Year Delivered by NHC				
	Medical Care	Prescriptions	Laboratory Tests	Dental Care	X-Rays
All	2.6	2.5	1.8	0.59	0.3
Predominant ethnic group[1] *served*					
White	3.2	1.9	1.5	0.63	0.26
Black	2.7	2.8	1.9	0.64	0.3
Ratio, white to black	1.19	0.68	0.79	0.98	0.87
Location					
Urban	2.6	2.5	1.9	0.59	0.32
Rural	2.4	2.2	1.5	0.57	0.24
Ratio, urban to rural	1.08	1.14	1.27	1.04	1.33
Region					
Northeast	3.1	1.8	1.7	0.68	0.25
Midwest (North Central)	2.3	2.4	1.9	0.44	0.28
South	2.8	3.3	2	0.7	0.32
West	2.2	2.4	1.7	0.51	0.36

Source: Davis and Schoen (1978), table 6-2. [1]According to Davis and Schoen, this designates the ethnic group of the "majority of registrants." Centers with no dominant group are excluded from calculations by race.

ONLINE APPENDIX C: MORTALITY SUMMARY STATISTICS

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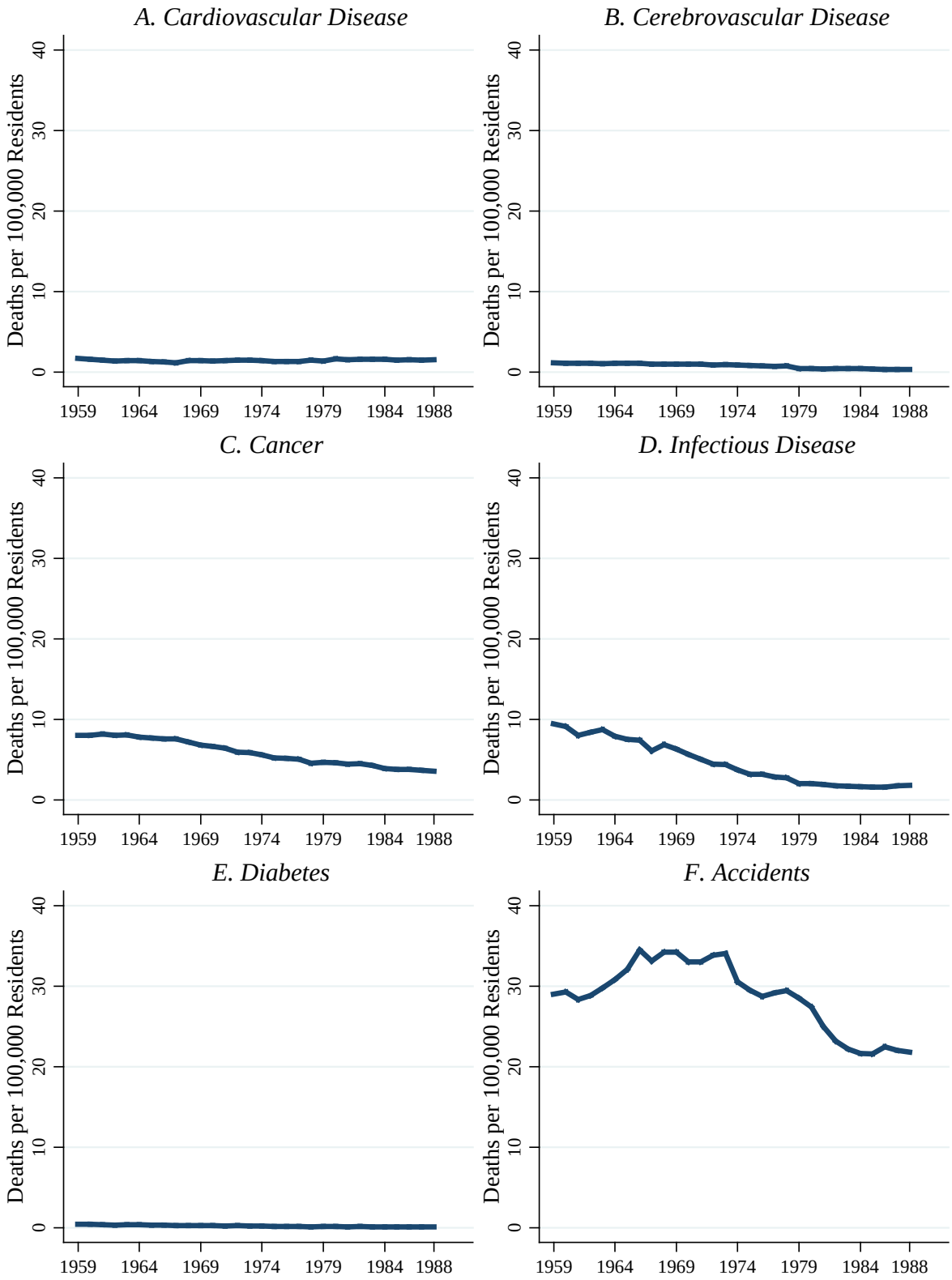
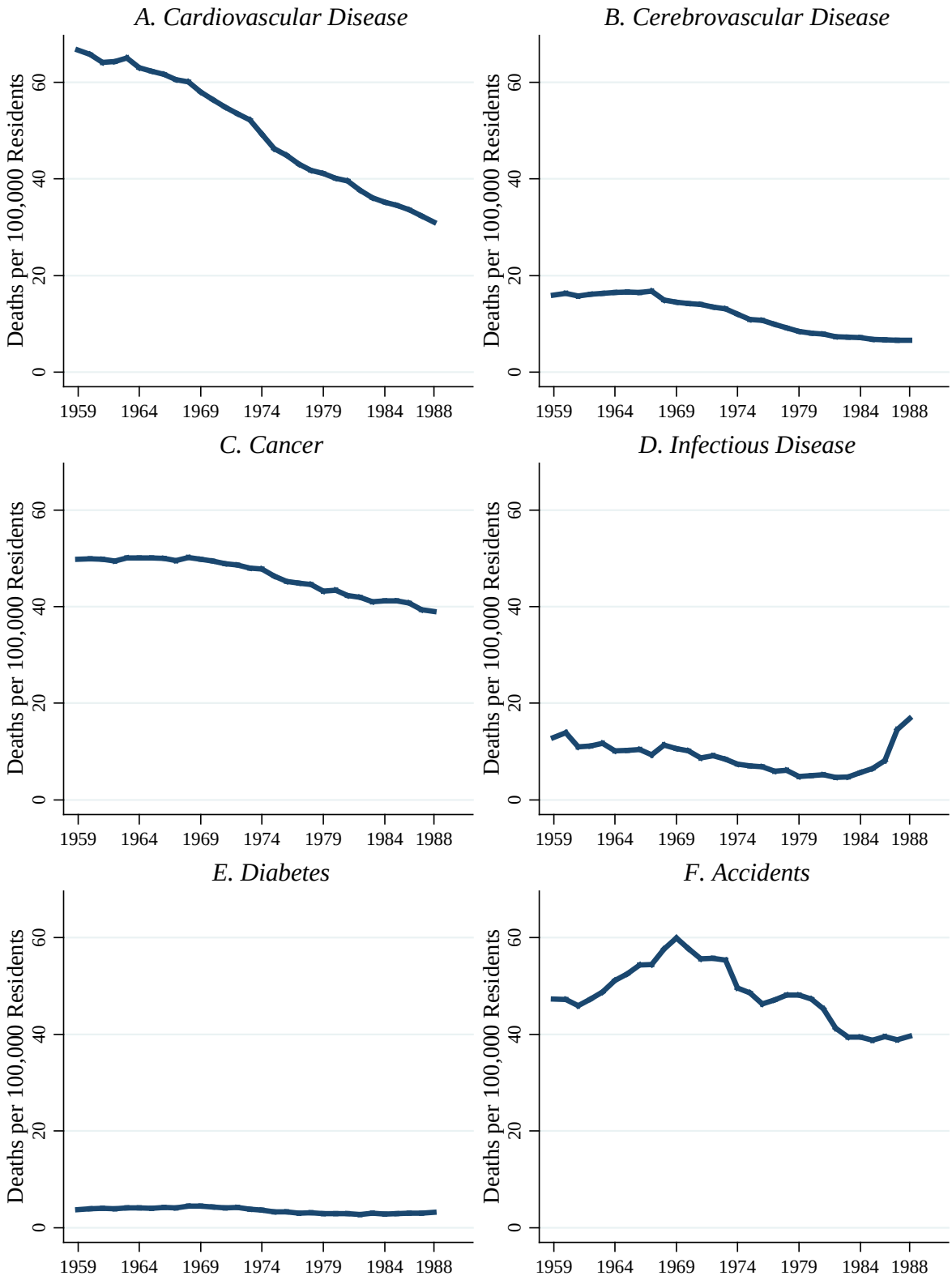
Figure C1.A. Age-Adjusted Child Mortality by Cause (Ages 1-19), 1959 to 1988



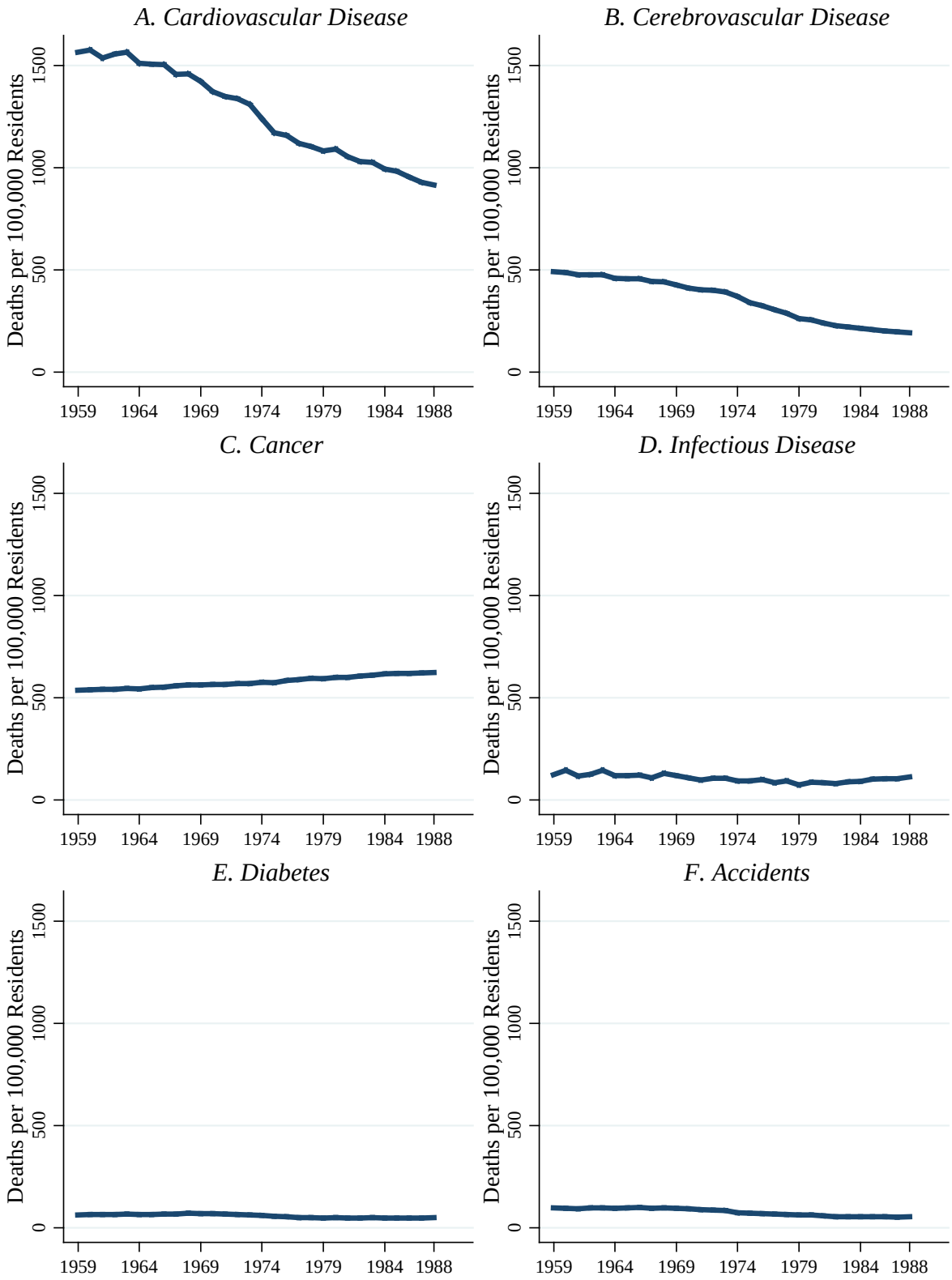
Notes: See notes to figure 1 and appendix A.

Figure C1.B. Age-Adjusted Adult Mortality by Cause (Ages 20-49), 1959 to 1988



Notes: See notes to figure 1 and appendix A.

Figure C1.C. Age-Adjusted Older Adult Mortality by Cause (Ages 50 and Older), 1959 to 1988



Notes: See notes to figure 1 and appendix A.

ONLINE APPENDIX D: ADDITIONAL EVIDENCE ON EXOGENEITY AND EMPIRICAL SPECIFICATION

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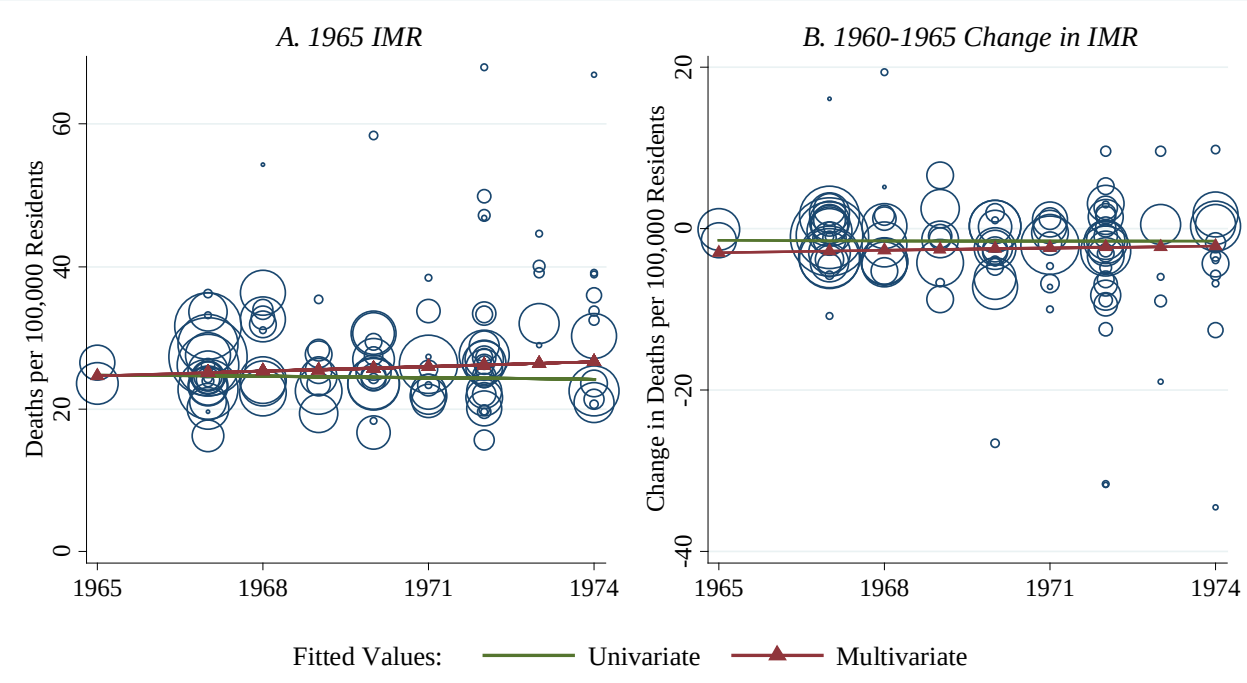
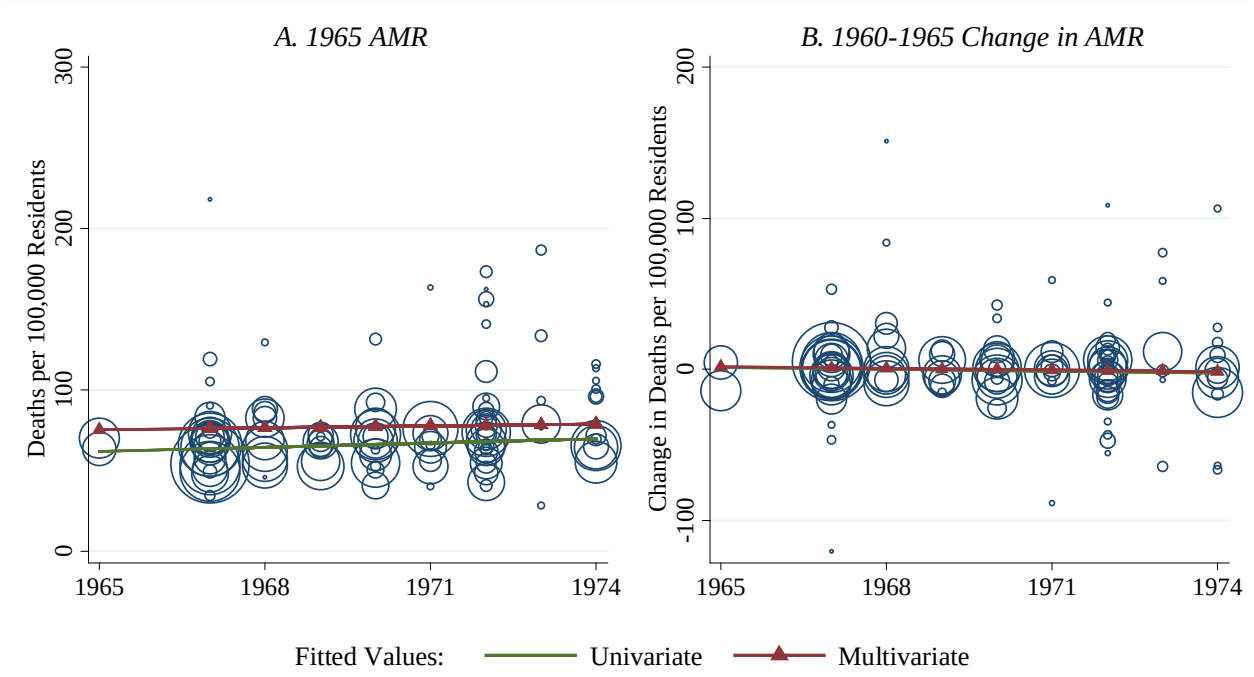
Figure D1.A Infant Mortality Rates before the Community Health Center Program Began



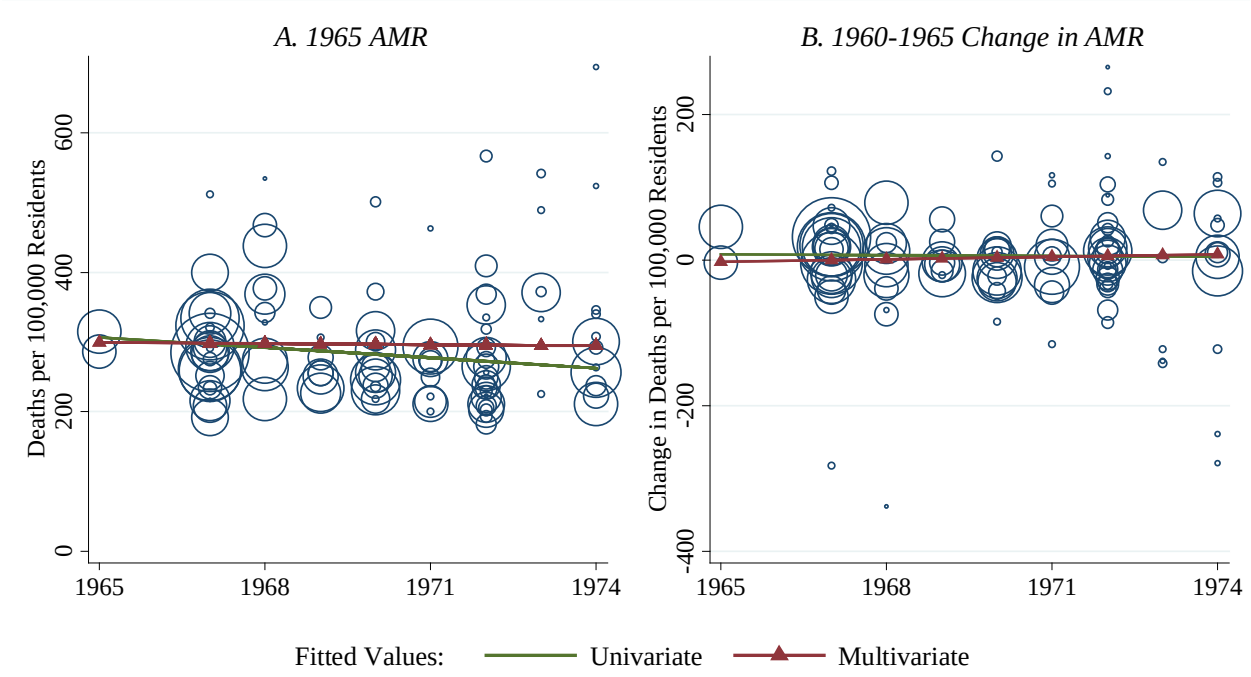
Notes: The dependent variable refers to levels of (A) or changes in (B) infant mortality rates (deaths per 1,000 live births). Univariate fitted values are from regressions of the dependent variable on the year CHCs were established for the 114 treated counties in the estimation sample. The estimated univariate slopes are –0.1 (s.e. = 0.2) for panel A, and -0.1 (s.e. = 0.1) for panel B. Multivariate fitted values are from regressions that also include the 1960 share of the county population that is urban, rural, between ages 0 and 4, older than 64, nonwhite, has more than 12 years of education, has less than 4 years of education, has family income less than $3,000, has family income more than $10,000; and the per-capita number of physicians (see table 1). The estimated multivariate slopes are 0.2 (s.e. = 0.1) for panel A and 0.01 (s.e. = 0.1) for panel B. Source: See figures 3 and 4.

Figure D1.B Age-Adjusted Child Mortality Rates before the Community Health Center Program Began



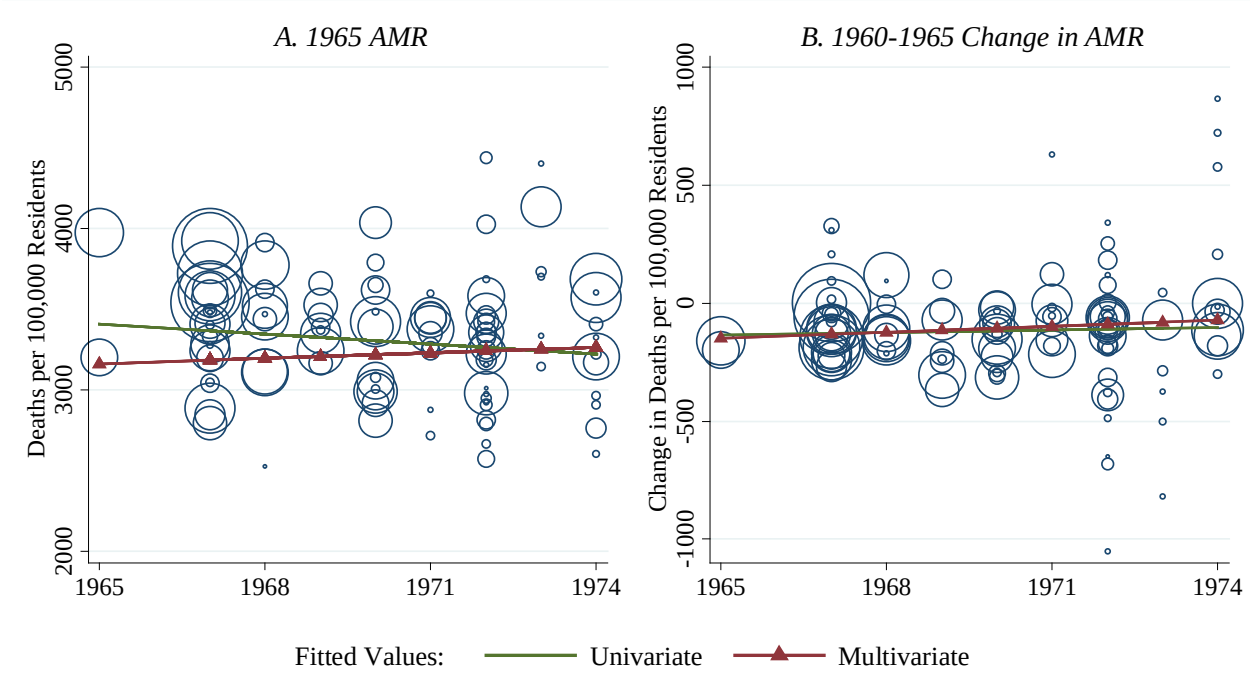
Notes: See figure D1.A. The estimated univariate slopes are 0.9 (s.e. = 0.6) for panel A and -0.5 (s.e. = 0.4) for panel B. The estimated multivariate slopes are 0.3 (s.e. = 0.4) for panel A, and -0.4 (s.e. = 0.4) for panel B. Source: See figures 3 and 4.

Figure D1.C Age-Adjusted Adult Mortality Rates before the Community Health Center Program Began



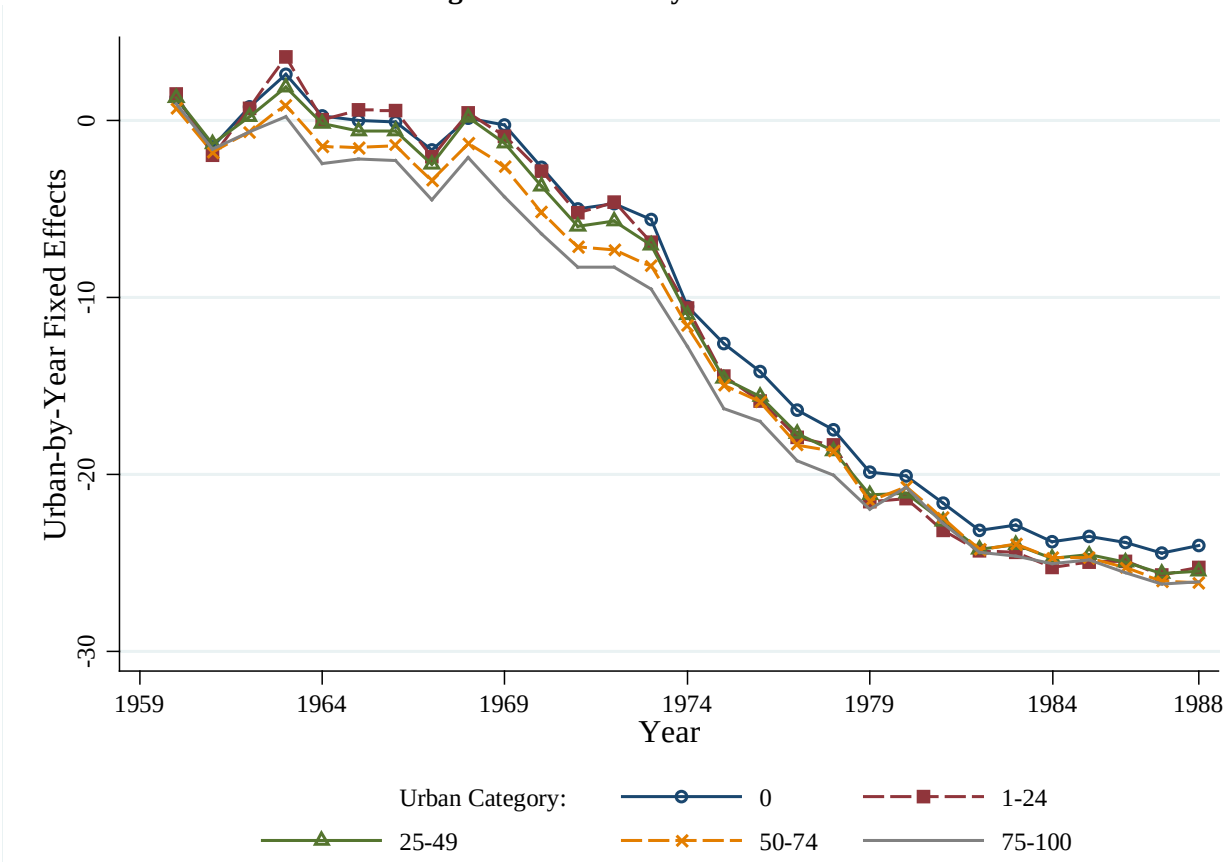
Notes: See figure D1.A. The estimated univariate slopes are -5 (s.e. = 3.4) for panel A and -0.5 (s.e. = 1.2) for panel B. The estimated multivariate slopes are -0.6 (s.e. = 1.9) for panel A, and 1.1 (s.e. = 1.6) for panel B. Source: See figures 3 and 4.

Figure D1.D Age-Adjusted Older Adult Mortality Rates before the Community Health Center Program Began



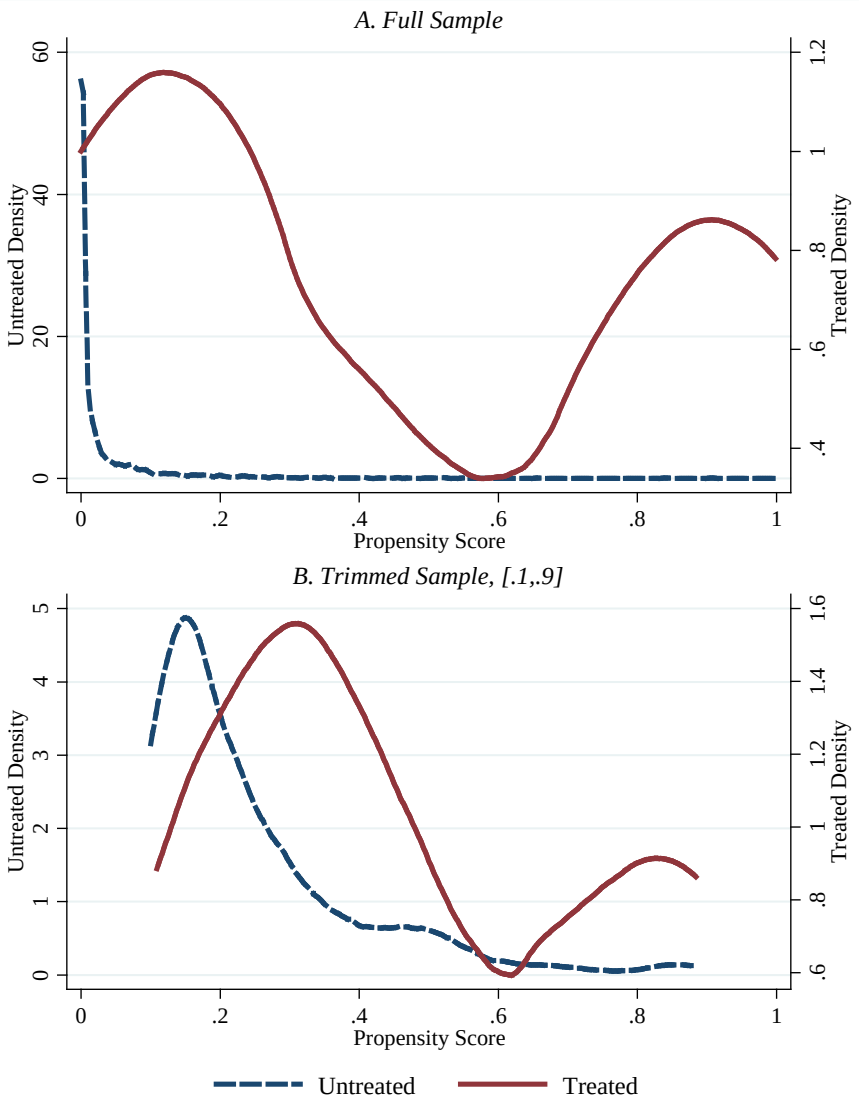
Notes: See figure D1.A. The estimated univariate slopes are -20.9 (s.e. = 19.9) for panel A and 3.6 (s.e. = 4.2) for panel B. The estimated multivariate slopes are 11.3 (s.e. = 10.2) for panel A, and 8.5 (s.e. = 4.8) for panel B. Source: See figures 3 and 4.

Figure D2. Urban-by-Year Fixed Effects



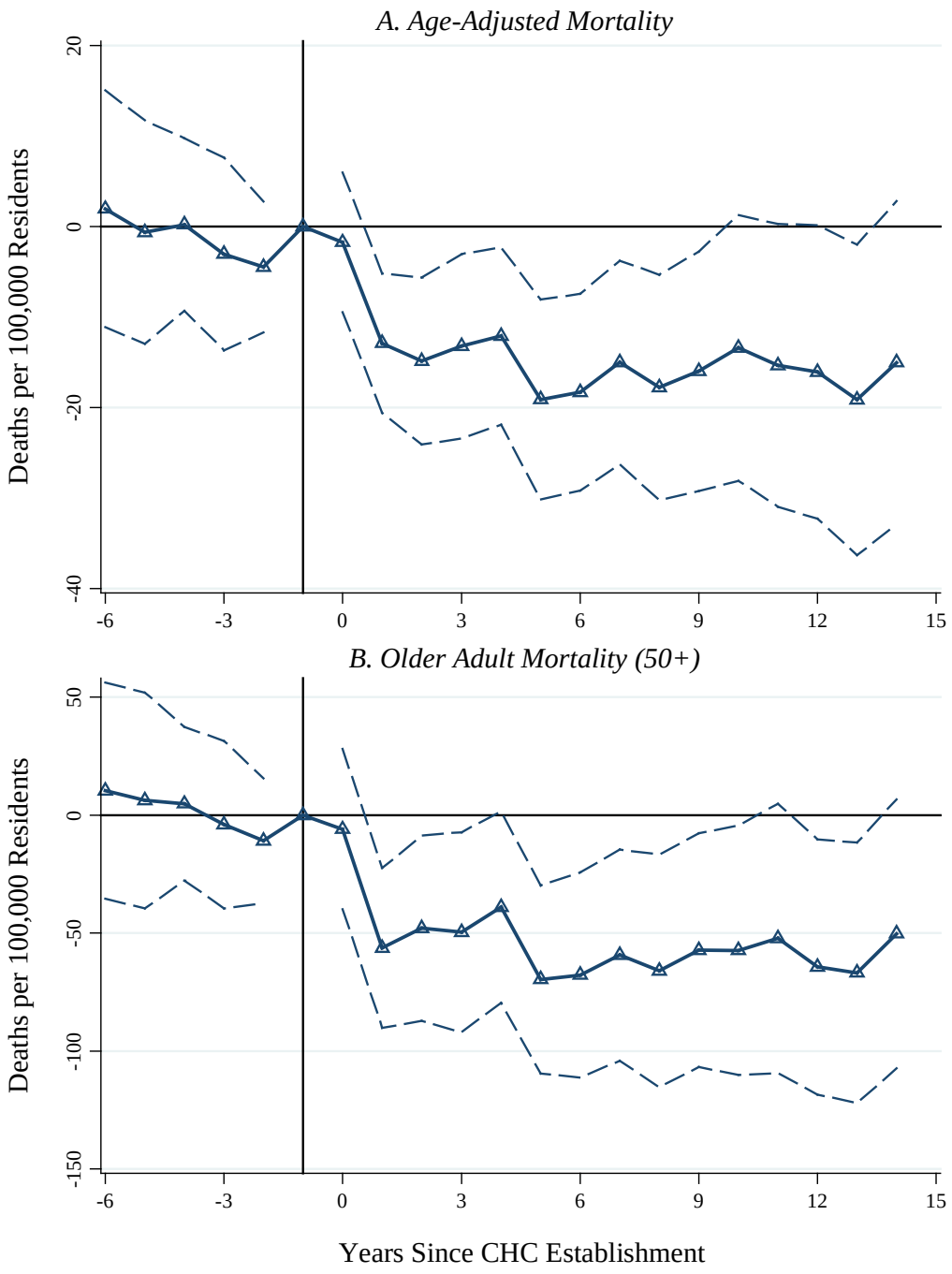
Notes: The figure plots the estimated urban-group-by-year fixed effects from the baseline specification presented in figure 5 and table 2.

Figure D3. Propensity Score Distributions



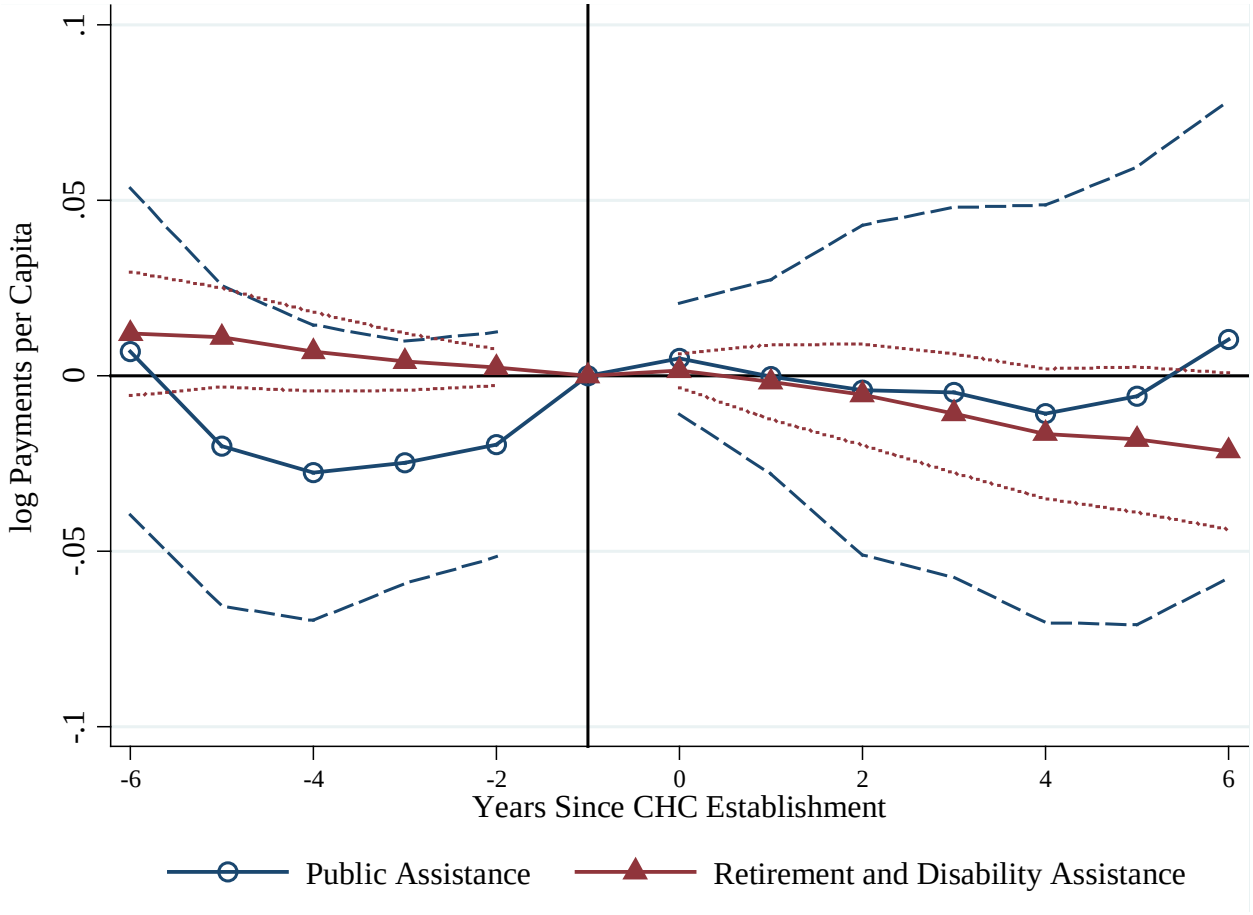
Notes: Figures show kernel density estimates using the Epanechnikov kernel for the full estimation sample (3,044 counties) and for a sample trimmed to include only propensity scores between 0.10 to 0.90 as suggested by Crump et al. (2009). The bandwidths for the untreated sample are .0026 and .0398 in the full and trimmed samples, respectively, and for the treated sample are .1388 and .0923 in the full and trimmed samples, respectively. We construct propensity scores by estimating a probit with the binary dependent variable equal to 1 if a county received a CHC from 1965 to 1974 using the following covariates: (1) Variables measured in 1960: population density and population density squared, 1950 to 1960 population growth, percent urban, percent rural, percent nonwhite, percent of population younger than 5, percent of population older than 21, percent of population older than 65, total housing units per 1000 population, civilian labor-force participation, fraction of housing units rented, median number of rooms per housing unit, percent of housing units with plumbing, share of housing units with a TV, share of housing units with a telephone, share of housing units with a car, the unemployment rate, share of the labor force that is male, fraction of the population 25 and older with less than 4 years of schooling, fraction of the population 25 and older with more than 12 or more years of schooling, number of MDs per 1,000 population. (2) Variables measured in 1959: fraction with family income below $3,000, fraction with family income above $10,000. (3) Variables measured in 1957: local government expenditures per 1000 population. (4) Other variables: dummy variables for the presence of a hospital in 1968 and for whether the county had a medical school in 1969, the total number of medical students in 1969, and four region dummies. This yields estimates of the propensity of treatment, $p_i=P(D_i=1|X_i)$. We then reweight untreated counties using the ratio, $p_i\,(1-q)/(1-p_i)q$, where q is the fraction of individuals over 50 in locations receiving CHCs, multiplied by the relevant population weight.

Figure D4. Changes in All-Cause Mortality Rates with the Establishment of a Community Health Center, Inverse Propensity Score Weighted Estimates, Propensity Score Trimmed Sample (0.1, 0.9)



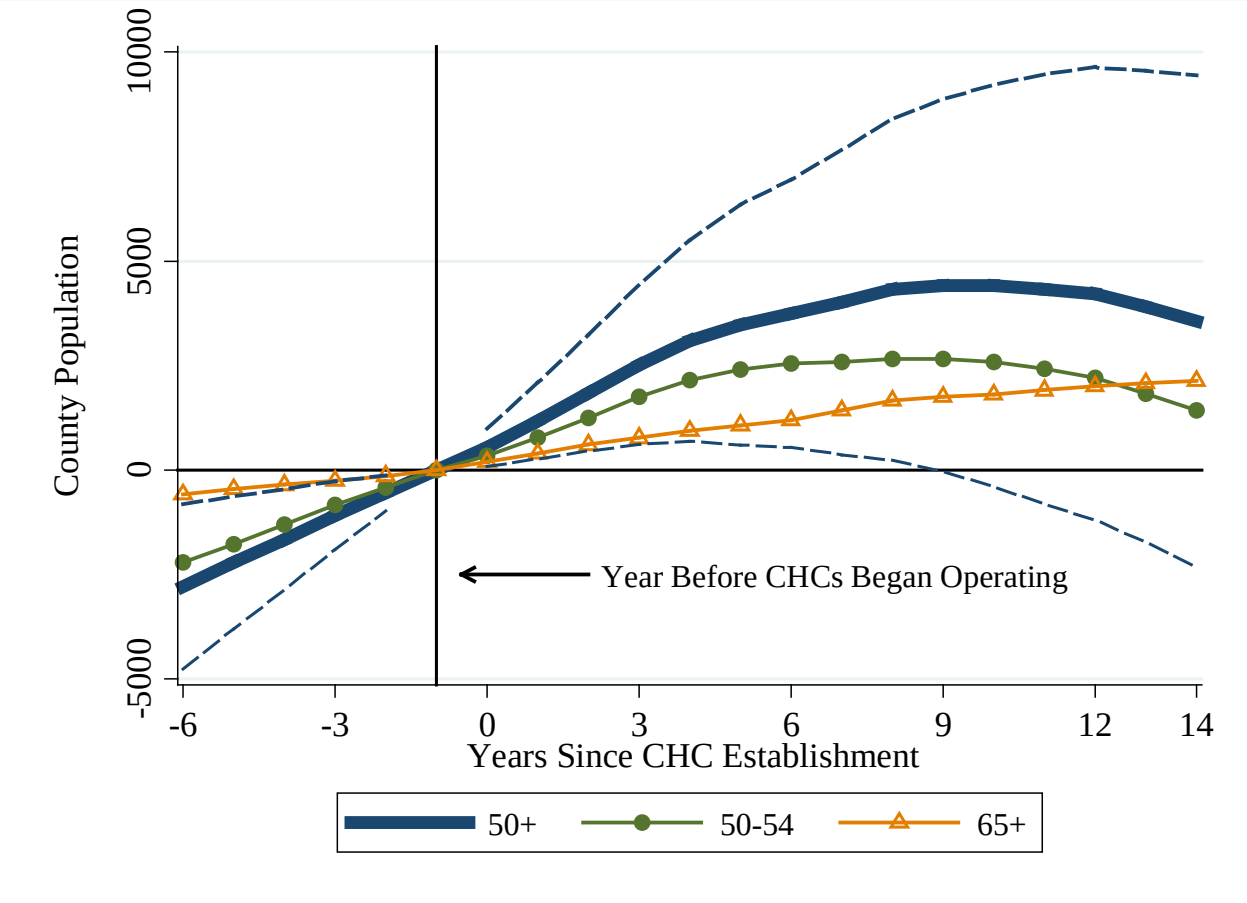
Notes: This is the event-study version of the table 2 column 4 DD specification. See table 2 and figure 5 notes. The sample includes only counties with estimated propensity scores between 0.1 and 0.9 (Crump et al. 2009).

Figure D5. Changes in Per-Capita Public Assistance Payments with the Establishment of a Community Health Center



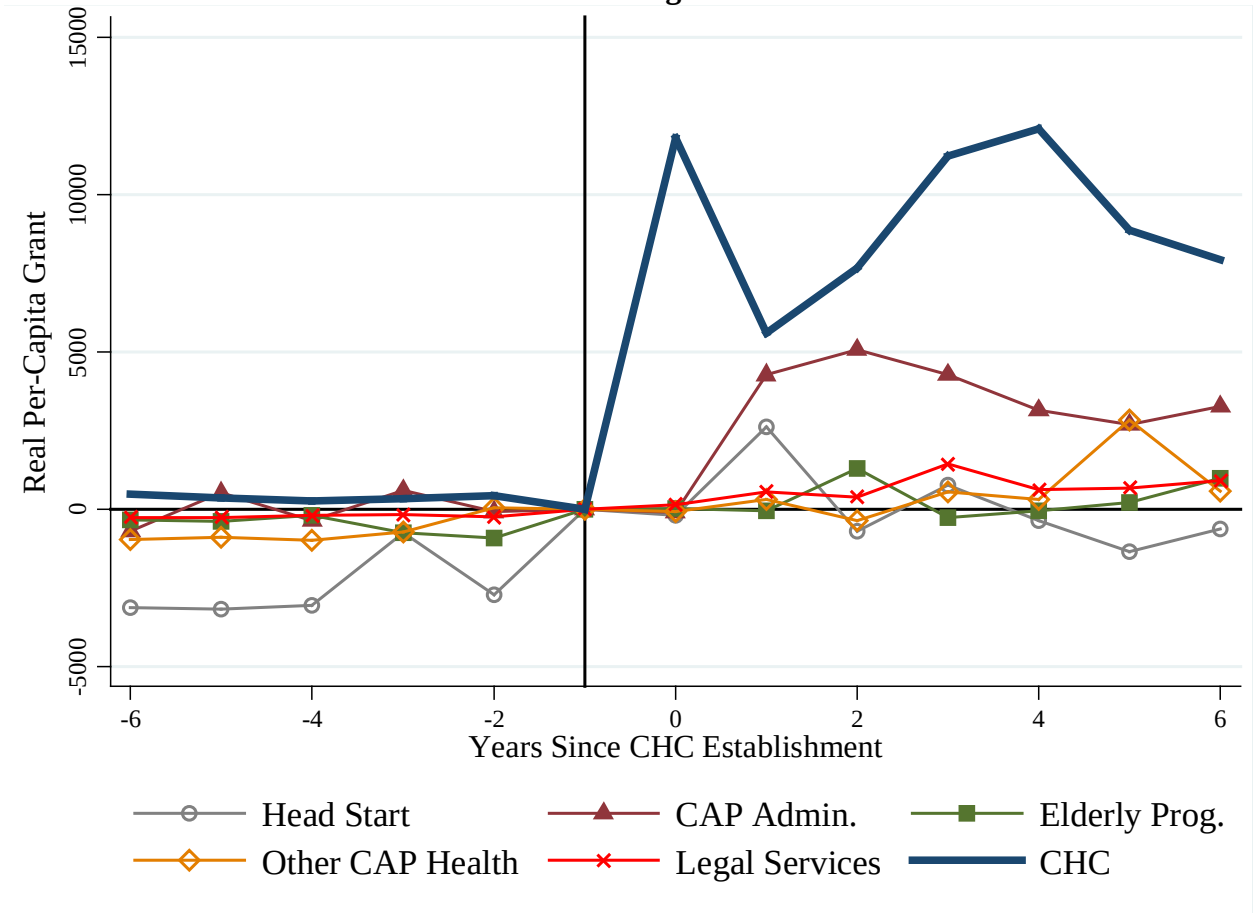
Notes: The figure plots weighted least-squares estimates of π and τ from equation 2 for model 2. The dependent variable equals the ratio of payments for each type of cash transfer program to county population (per 1,000). The public assistance variable contains the sum of per-capita expenditures on: Aid to Families with Dependent Children, emergency assistance programs, general assistance, SSI (and its predecessors Old Age Assistance, Aid to the Permanently and Totally Disabled, and Aid to the Blind), WIC, refugee assistance, foster home care and adoption assistance, earned income tax credit, and energy assistance. The retirement and disability assistance variable contains Old Age Survivors and Disability Insurance benefits, Railroad Retirement and disability benefits, Worker's Compensation benefits, and temporary disability payments, pension benefit guaranty payments, black lung payments, and Panama Canal construction annuity payments. Dashed lines are 95-percent confidence intervals using heteroskedasticity-robust standard errors clustered at the county level. See figure 4 notes for details on the specification and sample. Sources: NACAP and NAFO.

Figure D6. The Relationship between Community Health Center Establishment and Older-Adult Populations



Notes: The specification is the same as in figure 5 but the dependent variable is the county population for the indicated age group.

Figure D7. Relationship between Community Health Centers Establishment and the Amount of Other Federal Program Grants



Notes: see notes to figure 9A. The outcome variable in this figure is real, per-capita grant funds in each program.

Table D1. The Determinants of When Community Health Centers Were Established

DV: Year CHC Grant Awarded	(1)	(2)
Proportion of Residents (1960)		
in urban areas	-0.003	-0.01
	[0.03]	[0.01]
in rural or farm areas	0.06	0.04
	[0.07]	[0.04]
under 5 years of age	0.06	0.16
	[0.29]	[0.19]
over 64 years of age	-0.19	-0.06
	[0.23]	[0.15]
nonwhite	-0.02	0.001
	[0.03]	[0.02]
with 12 years of education	-0.06	-0.03
	[0.05]	[0.05]
with less than 4 years of education	0.03	0.05
	[0.11]	[0.08]
in households with income <$3,000	-0.05	-0.06
	[0.09]	[0.06]
in households with income>$10,000	0.10	0.05
	[0.12]	[0.09]
County Medical Resources		
Total Active MDs (per 1,000 residents)	-1.32	-1.15
	[0.33]	[0.28]
Mortality Variables		
1960 AMR	0.004	0.001
	[0.005]	[0.003]
1960-1965 Change in AMR	0.012	0.001
	[0.008]	[0.005]
Weighted?	Y	N
Observations	114	114
R^2	0.35	0.25
p-value from F-test:		
H_0: All Coefficients (w/o urban) =0	0.0019	0.0001
H_0: All Coefficients (w/o urban and MDs)=0	0.29	0.44

Notes: Each column reports estimates from a separate linear regression. Robust standard errors are presented in brackets. Sample: 114 counties receiving a CHC between 1965 and 1974. Sources: See table 1.

Table D2. The Relationship Between Community Health Center Status in 1970 and the Probability of Changing Residence or State within Five Years

A. Lived in a Different House in 1965

	(1)	(2)
CHC by 1970	0.016	0.012
	[0.021]	[0.02]
Constant	0.286	0.394
	[0.013]	[0.016]
Covariates?	N	Y
Sample Restriction	All, 50+	All, 50+
Observations	117,869	117,635
R^2	<0.001	0.02

B. Lived in a Different State in 1965

	(1)	(2)
CHC by 1970	-0.008	-0.008
	[0.012]	[0.011]
Constant	0.062	0.087
	[0.009]	[0.009]
Covariates?	N	Y
Sample Restriction	All, 50+	All, 50+
Observations	236,373	235,883
R^2	<0.001	0.01

Notes: The sample includes all identified counties in the 1970 Census (Ruggles et al 2010). Panel A includes respondents who filled out state and metro form 2, and panel B includes all state and metro respondents.

Table D3. Neighborhood Tenure and Differences in Self-Reported Health and Knowledge of Community Health Centers by Neighborhood Tenure, NHC Survey Respondents 50 and Older

Neighborhood Tenure Categories:	*< 1 Year*	*[1,3) Years*	*[3,5) Years*	*≥ 5 Years*
	(1)	(2)	(3)	(4)
Share in Each Tenure Bin	0.05	0.08	0.07	0.80
Poor/Fair Subjective Health	0.39	0.40	0.45	0.39
p-value on difference from "<1 Year"		(0.76)	(0.11)	(0.98)
Knew about CHC Before Interview	0.31	0.35	0.38	0.37
p-value on difference from "<1 Year"		(0.21)	(0.02)	(0.01)

Notes: Data from the OEO's 11 City Survey.

Table D4. Estimated Marginal Effects from the Propensity Score Equation

Independent Variable	Marginal Effect	Independent Variable	Marginal Effect
Pop. Density	-0.0006	Houses per 1,000 Residents	0.05
	[0.0025]		[0.02]
(Pop. Density)^2	-0.0000001	Share of Units Rented	54.50
	[0.0000002]		[23.7]
Population Growth, 1950-1960	-0.05	Share of Units with Plumbing	0.07
	[0.04]		[0.19]
Labor Force Participation	-32.10	Median Numbers of Rooms	4.25
	[43.8]		[4.84]
Unemployment Rate	1.74	Share of Families with TV	0.00
	[0.68]		[0.23]
Male Share of Labor Force	-0.28	Share Families with Telephone	-0.24
	[0.43]		[0.22]
Share of Residents in 1960:			
Nonwhite	0.33	Share of Families with a Car	0.33
	[0.13]		[0.27]
Under Age 5	-1.63	Had a Hospital in 1968	-4.22
	[1.74]		[3.14]
Under Age 21	-0.55	MDs per 1,000 Residents	1.07
	[0.96]		[2.11]
Over Age 64	-0.05	Government Expenditure per 1,000 Residents	-0.03
	[0.91]		[0.04]
In Urban Area	0.33	Total Medical Students, 1969	0.01
	[0.11]		[0.01]
In Rural Area	-0.34	Any Medical Students, 1969	20.20
	[0.28]		[4.09]
with Family Income < $3k	-0.22	Midwest	3.15
	[0.39]		[4.42]
with Family Income >$10k	0.59	Mid-Atlantic	-6.69
	[0.4]		[4.88]
with < 4 Years of School	0.16	South	-0.07
	[0.36]		[5.32]
with > 12 Years of School	-0.16	West	13.20
	[0.3]		[5.68]
Observations	3025		

Notes: The table contains marginal effects (mean derivatives multiplied by 100) from a probit equation used to predict propensity scores. The dependent variable is a dummy equal to one for the 114 counties in the estimation sample that received CHCs before 1975.

Table D5. Changes in All-Cause, Older-Adult Mortality Rates with the Establishment of a Community Health Center, Inverse Propensity Score Weighted Estimates

	(1)	(2)	(3)
Years -6 to -2	9.36	6.26	2.13
	11.38	8.98	12.06
Years 0 to 4	-34.86	-32.44	-33.98
	11.20	14.47	15.42
Years 5 to 9	-51.89	-54.63	-74.05
	16.34	17.60	20.71
Years 10 to 14	-65.81	-54.41	-78.45
	19.82	21.12	26.62
R^2	0.95	0.91	0.93
Specification and Sample	Baseline specification, P-weighted	Region-by-year effects specification, P-weighted	Region-by-year effects specification, P-weighted, Trimmed Sample

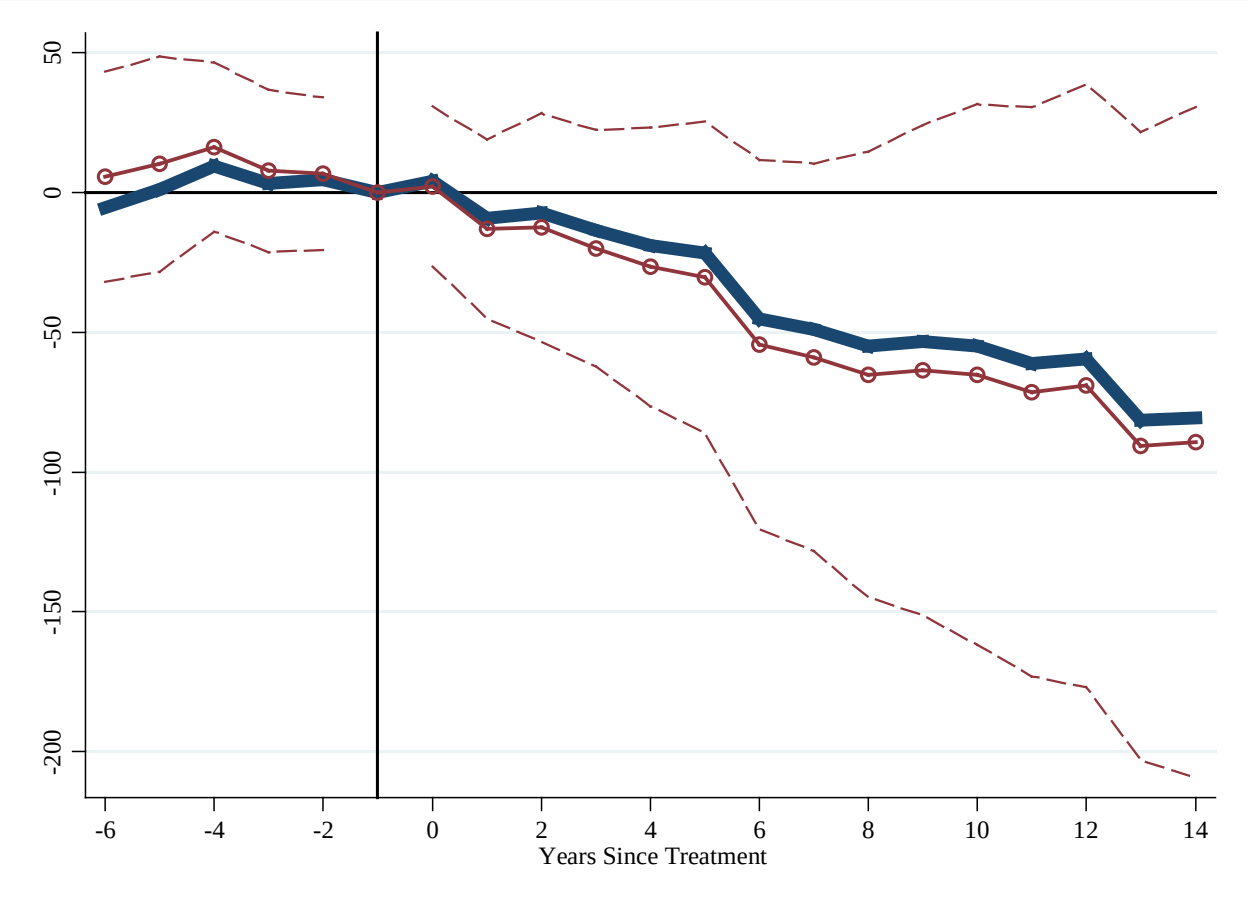
Notes: The first column reproduces column 4 of panel B of table 2. The second column replaces state-by-year effects with region-by-year effects. The third column trims the sample to those with estimated propensity scores between 0.1 and 0.9 (Crump et al. 2009) and includes region-by-year fixed effects.

ONLINE APPENDIX E: ROBUSTNESS CHECKS

From the paper:
THE WAR ON POVERTY'S EXPERIMENT IN PUBLIC MEDICINE:
COMMUNITY HEALTH CENTERS AND THE MORTALITY OF OLDER AMERICANS

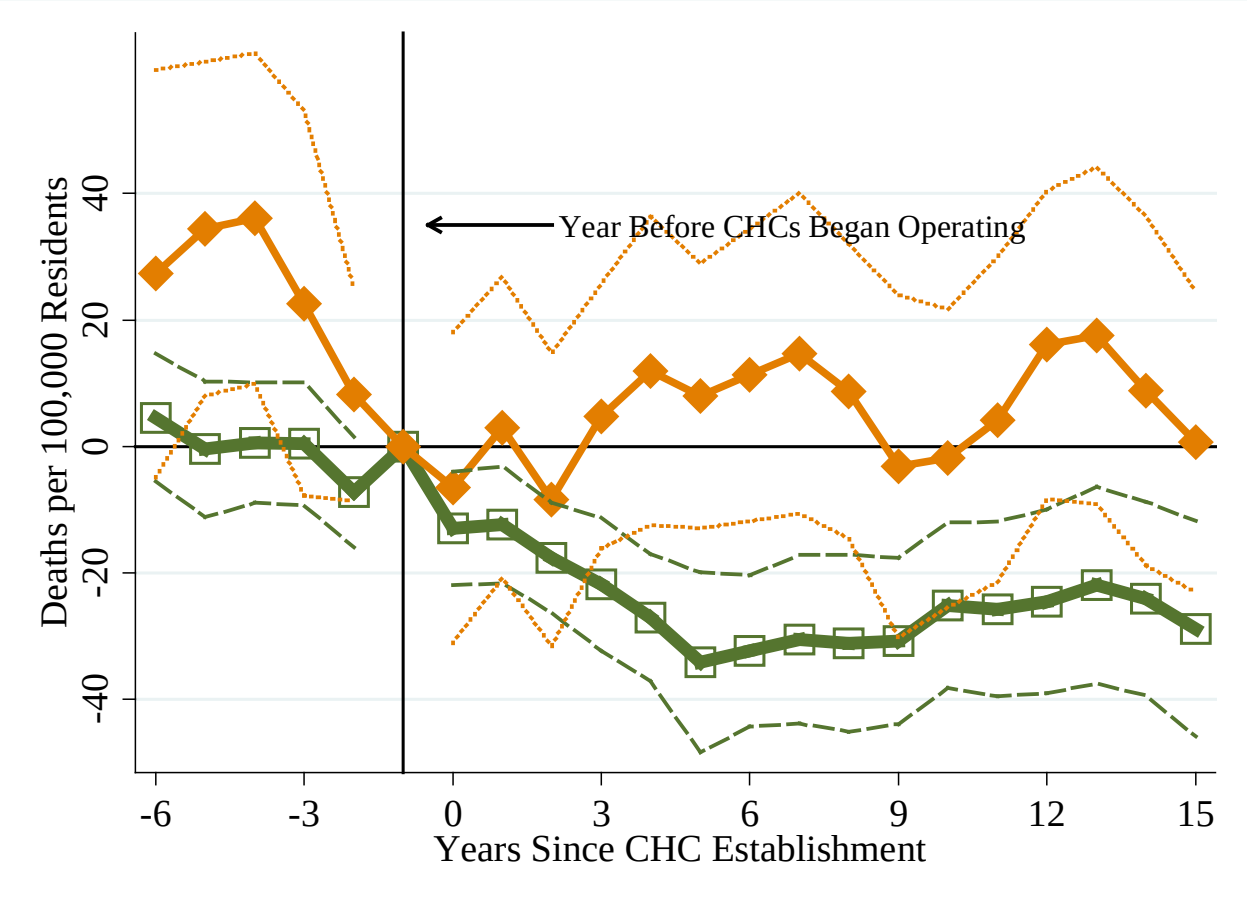
Martha J. Bailey and Andrew Goodman-Bacon

Figure E1. The Relationship of All-Cause Mortality Rates and the Establishment of a Community Health Center, Treated Counties Only



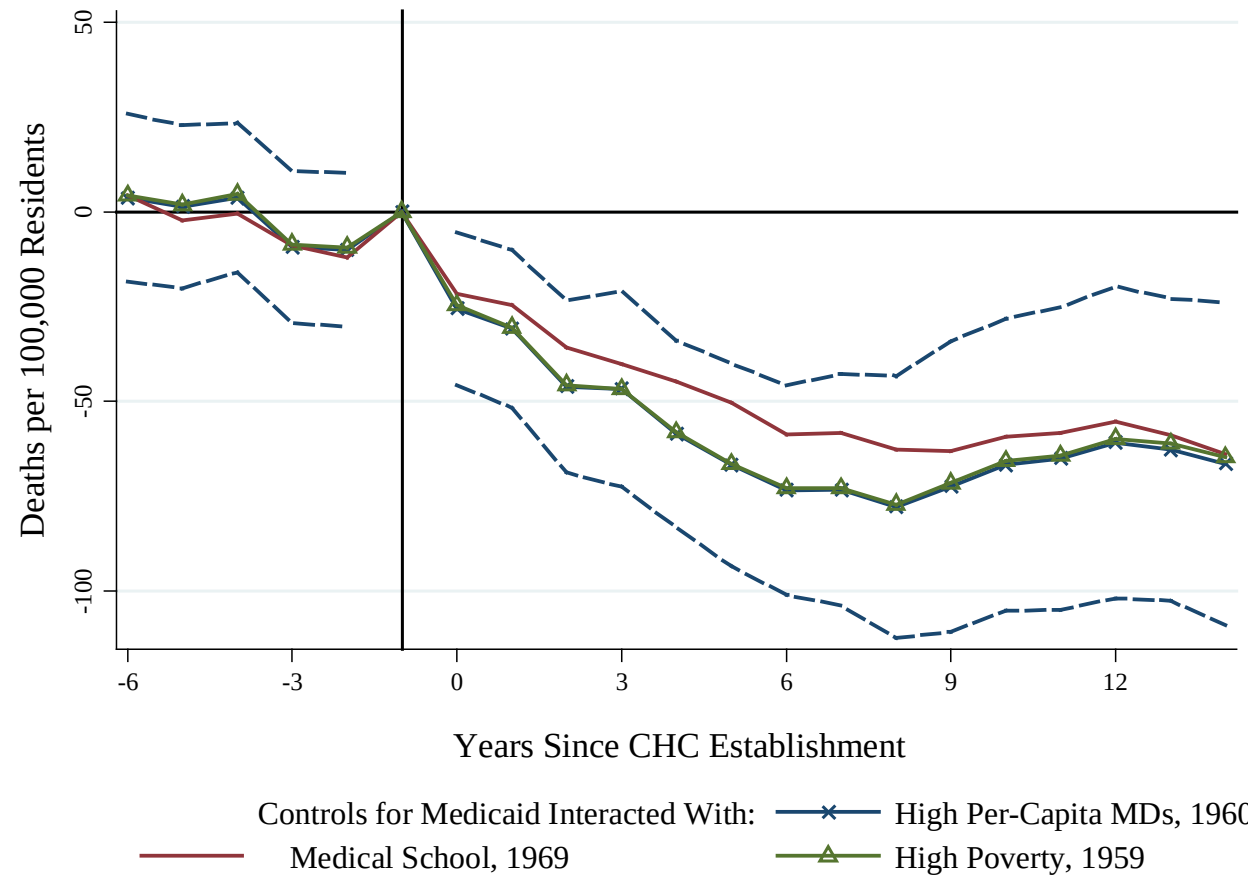
Notes: The specification in the solid line includes urban-by-year effects and region-by-year fixed effects. The series with open circles also include county-specific trends, and the dashed lines are 95-percent confidence intervals for this specification.

Figure E2. Changes in All-Cause, Age-Adjusted Mortality Rates with the Establishment of a Community Health Center by Urban Status, Unweighted Estimates



Notes: See figure 5 and figure 6. The sample and specification are the same except that the estimates are not weighed by county populations.

Figure E3. Changes in All-Cause, Age-Adjusted Mortality Rates with Establishment of a Community Health Center with Controls for Medicaid Timing



Notes: Here we present event-study estimates from model 2 of the effects of CHCs on *AMR*, which additionally control for local characteristics interacted with a binary variable for Medicaid start dates that vary across states. The idea behind this specification is that Medicaid may have had larger effects in places with different baseline characteristics (were poorer, had more physicians, or had a medical school). This specification controls for these potential effects of Medicaid by interacting dummy variables for years before and after Medicaid-implementation with county characteristics that may be correlated with stronger Medicaid effects. We estimate separate regressions that interact the Medicaid-timing dummies with an indicator for 1960 poverty rates greater than 45% (green open triangles), an indicator for whether a county had more than the median number of active MDs in 1960 (blue Xs), or an indicator for whether or not a county contained a medical school in 1969 (maroon, no markers). The estimated effects of CHCs are similar and statistically indistinguishable in all models.

Table E1. Pre- and Post-CHC Linear Trends in Older-Adult Mortality, Treated Counties Only

	(1)	(2)
Pre-CHC Trend (years -6 through 14)	2.18	0.18
	[4.4]	[4.42]
Post-CHC Trend Break (years 0 through 14)	-8.06	-6.65
	[5.74]	[5.59]
R^2	0.94	0.97
Covariates	County FE, Urban-by-year FE, region-by-year FE	+ county-specific time-trends

Notes: The sample includes 3,420 observations from the 114 treated counties.

ONLINE APPENDIX F: SCALING AND MECHANISMS

From the paper:

THE WAR ON POVERTY'S EXPERIMENT IN PUBLIC MEDICINE:
COMMUNITY HEALTH CENTERS AND THE MORTALITY OF OLDER AMERICANS

Martha J. Bailey and Andrew Goodman-Bacon

Table F1. Calculation of Average Treatment Effect on the Treated for Older Adults

A. Scaling by Share of Residents in Poverty	
1968 Poverty Rate (CPS)	0.22
ITT Estimate, Older Adults, Years 5-9 (average of 4 models)	-61.00
Implied ATET = ITT/Poverty	**-278**

B. Scaling by Estimate of CHC Users	
(1) National CHC Use (1970, SHSUE)	0.0093
(2) Share of Sample Population in Treated Counties (1965, Census and SEER)	0.28
(3) Underreporting of Clinic Visits (Bound, Brown and Mathiowetz 2001)	0.39
(4) Share of MD Visits within 5 Years that took place last year (OEO Surveys)	0.76
(5) Inflation Factor = (1)/[(2)*(3)*(4)]	0.11
ITT Estimate, Older Adults, Years 5-9 (average of 4 models)	-61.00
Implied ATET = ITT/(5)	**-546**

Table F2. Potential Contribution of Anti-Hypertensive Medication to Estimated Effects for Older Adults using the Hypertension Detection and Follow-Up Program.

A. RCT Results for Anti-Hypertensive Drugs, Hypertension Detection and Follow-Up Program	
(1) ATET for 5-Year Mortality (HDFP 1979)	-2160 deaths per 100,000
(2) Share Using CHC (table F1)	0.16
(3) Share with Hypertension (NHES 197X)	0.26
(4) Implied ITT for 5-Year Mortaltiy, (1)*(2)*(3)	-92 deaths per 100,000

B. CHC ITT Estimates	
(5) ITT Estimate, 1-Year Mortality (table 3)	-60 deaths per 100,000
(6) ITT Estimate, 5-Year Mortality = $100{,}000*[(1 - .0321)^5 - (1 - (.0321 - .0006))^5]$	-264 deaths per 100,000
(7) Share of 5-Year ITT accounted for by anti-hypertensive RCT estimates	**0.35**

Table F3. Knowledge of Community Health Centers by Age and Race, 11 City Survey

	Nonwhite	White	p-value of difference
	(1)	(2)	(3)
Age 0	0.35	0.54	0.00
Ages 1-14	0.38	0.59	0.00
Ages 15-49	0.35	0.53	0.00
Ages 50+	0.32	0.42	0.00

Notes: The table presents means of the responses of household heads to the question "Had you heard of _____ health center, before this survey?" The question was not asked of respondents in the Eastern Montana Survey.

Table F4. Changes in Primary Care Use with the Establishment of a Community Health Center by Poverty Status, All Ages

	(1) Regular Source of Care	(2) Scheduled Visits + Hosp. Admits	(3) Saw Physician Last Year	(5) Any Out-of-Pocket Prescription Drug Exp.
	A. Household Income Less than 100 Percent of Poverty Line			
Mean Dependent Variable in 1963 in Treated PSUs	*0.75*	*4.71*	*0.51*	*0.27*
CHC*1970	0.12	1.60	-0.02	-0.07
	[0.08]	[1.08]	[0.07]	[0.05]
Observations	4010	4010	4010	4010
R^2	0.14	0.17	0.19	0.21
	B. Household Income between 100 and 299 Percent of the Poverty Line			
Mean Dependent Variable in 1963 in Treated PSUs	*0.87*	*5.41*	*0.69*	*0.48*
CHC*1970	-0.02	1.01	-0.03	-0.06
	[0.03]	[0.57]	[0.04]	[0.03]
Observations	9402	9402	9402	9402
R^2	0.09	0.06	0.07	0.10
	C. Household Income over 300 Percent of the Poverty Line			
Mean Dependent Variable in 1963 in Treated PSUs	*0.86*	*6.46*	*0.72*	*0.50*
CHC*1970	-0.03	-0.94	0.03	0.02
	[0.03]	[0.91]	[0.04]	[0.03]
Observations	3976	3976	3976	3976
R^2	0.12	0.07	0.09	0.10
H_0: Coef. in Panel C = Coef. in Panel A (p-value)	0.07	0.07	0.57	0.11

Notes: See notes to table 5.

Table F5. Changes in Primary Care Use with the Establishment of a Community Health Center by Poverty Status, Unweighted, Respondents Age 50 and Older

	(1) Regular Source of Care	(2) Scheduled Visits + Hosp. Admits	(3) Saw Physician Last Year	(5) Any Out-of-Pocket Prescription Drug Exp.
	A. Household Income Less than 100 Percent of Poverty Line			
Mean Dependent Variable in 1963 in Treated PSUs	*0.76*	*6.96*	*0.66*	*0.56*
CHC*1970	0.16	3.81	0.01	-0.24
	[0.08]	[3.75]	[0.1]	[0.11]
Observations	949	949	949	949
R^2	0.17	0.18	0.14	0.19
	B. Household Income between 100 and 299 Percent of the Poverty Line			
Mean Dependent Variable in 1963 in Treated PSUs	*0.86*	*8.85*	*0.69*	*0.53*
CHC*1970	-0.05	-1.72	-0.04	-0.11
	[0.05]	[1.4]	[0.05]	[0.06]
Observations	2073	2073	2073	2073
R^2	0.07	0.06	0.08	0.09
	C. Household Income over 300 Percent of the Poverty Line			
Mean Dependent Variable in 1963 in Treated PSUs	*0.89*	*7.53*	*0.71*	*0.56*
CHC*1970	-0.04	-0.35	0.02	0.02
	[0.04]	[2.25]	[0.05]	[0.06]
Observations	1218	1218	1218	1218
R^2	0.10	0.11	0.11	0.11
H_0: Coef. in Panel C = Coef. in Panel A (p-value)	0.02	0.33	0.96	0.03

See notes to Table 5.

Table F6. Changes in the Reporting of a "Clinic" as a Regular Source of Care with Community Health Center Establishment

	(1)	(2)	(3)	(4)
		DD Model		
	Full Sample	*Urban Areas*	*Rural Areas*	*DDD Model by Poverty Categories*
CHC Before 1970	0.08	0.09	0.05	0.14
	[0.03]	[0.03]	[0.04]	[0.05]
CHC Before 1970*(100-300% of poverty)				-0.04
				[0.07]
CHC Before 1970*(above 300% of poverty)				-0.07
				[0.06]
Observations	17,390	12,880	4,510	17,388
R^2	0.10	0.10	0.24	0.18

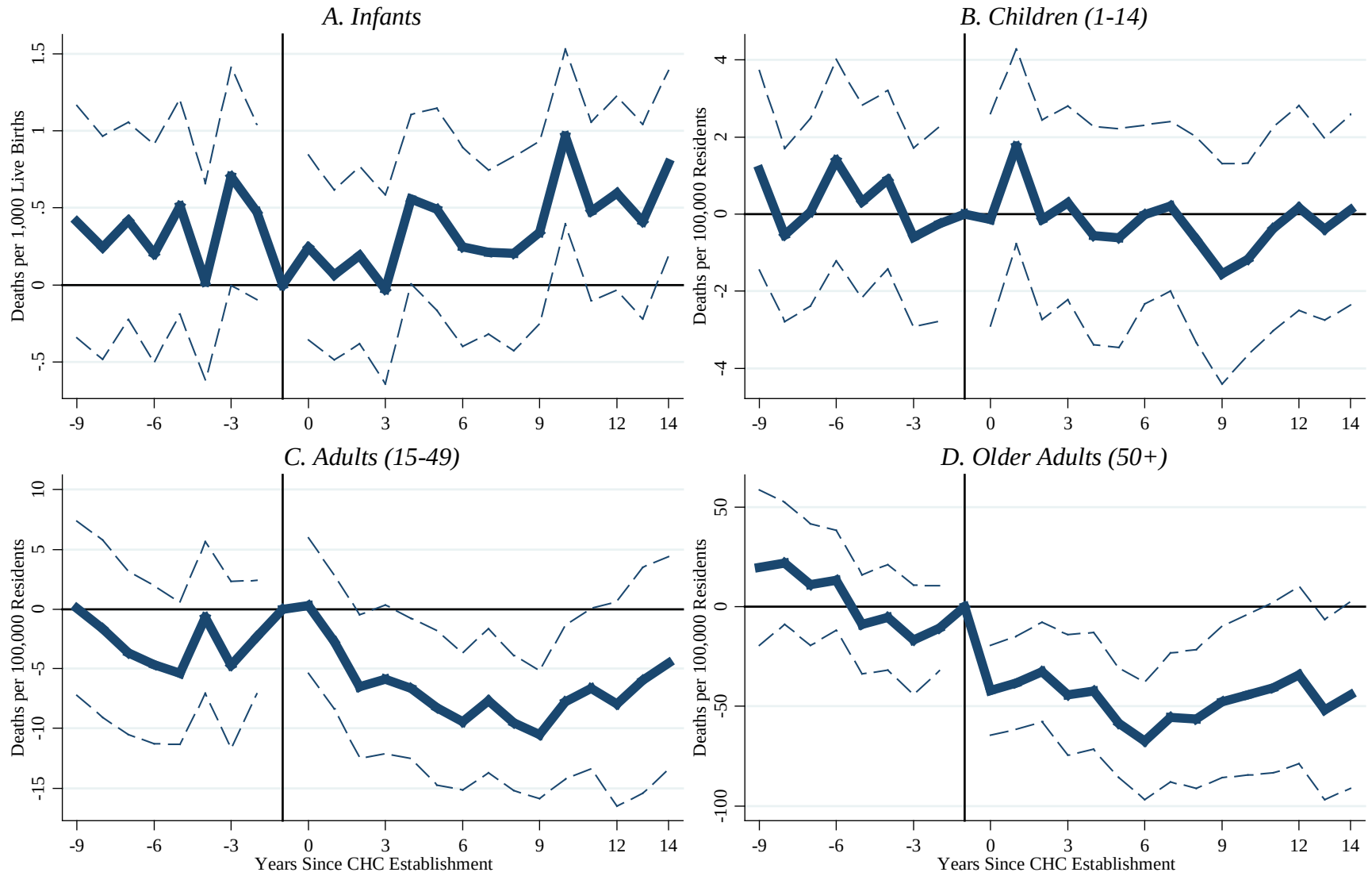
Notes: The sample contains all respondents from the 1963 and 1970 Surveys of Health Services Utilization and Expenditure. Covariates include age, race, family size and area-of-residence dummies as well as PSU fixed effects.

ONLINE APPENDIX G: ADDITIONAL ESTIMATES

From the paper:
THE WAR ON POVERTY'S EXPERIMENT IN PUBLIC MEDICINE:
COMMUNITY HEALTH CENTERS AND THE MORTALITY OF OLDER AMERICANS

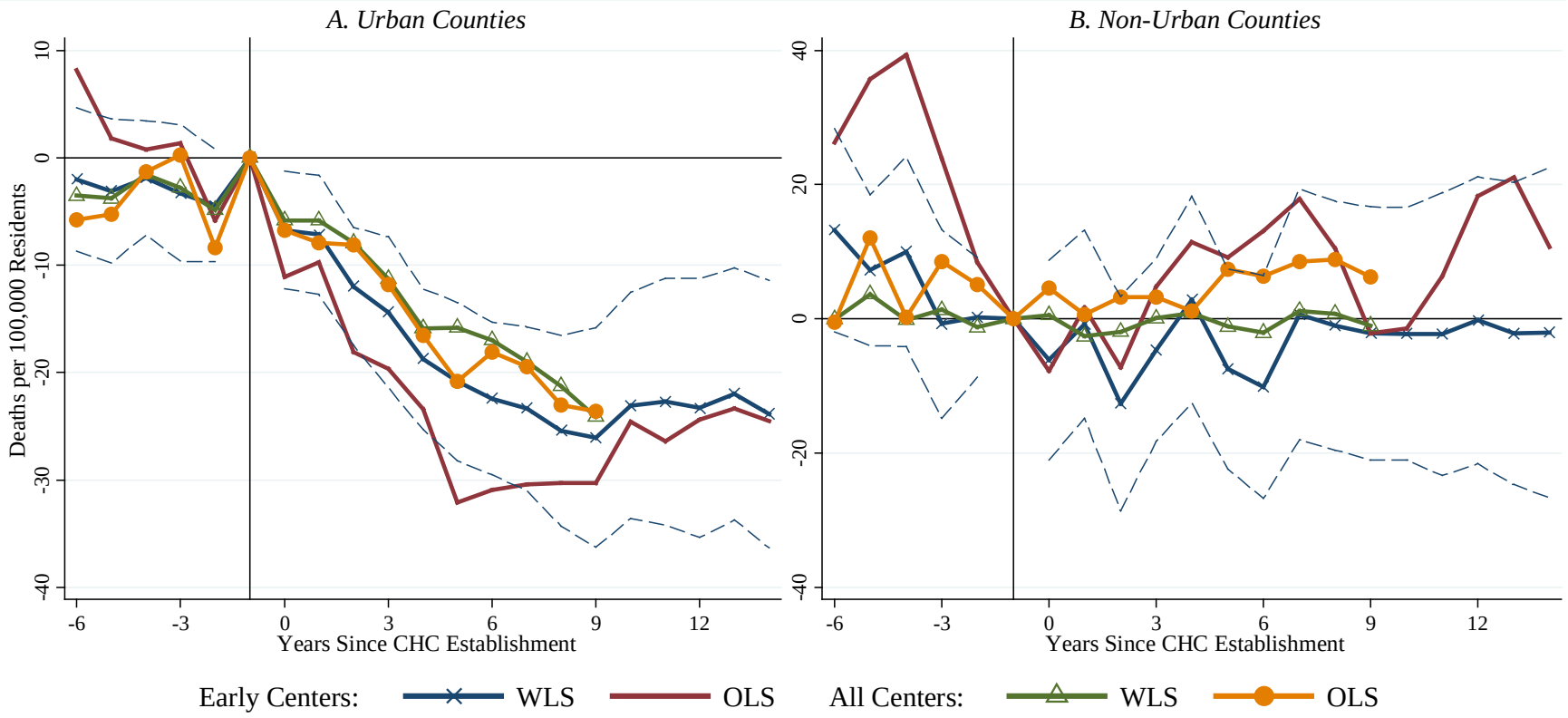
Martha J. Bailey and Andrew Goodman-Bacon

Figure G1. Changes in All-Cause Mortality Rates with the Establishment of a Community Health Center, CHCs funded after 1967



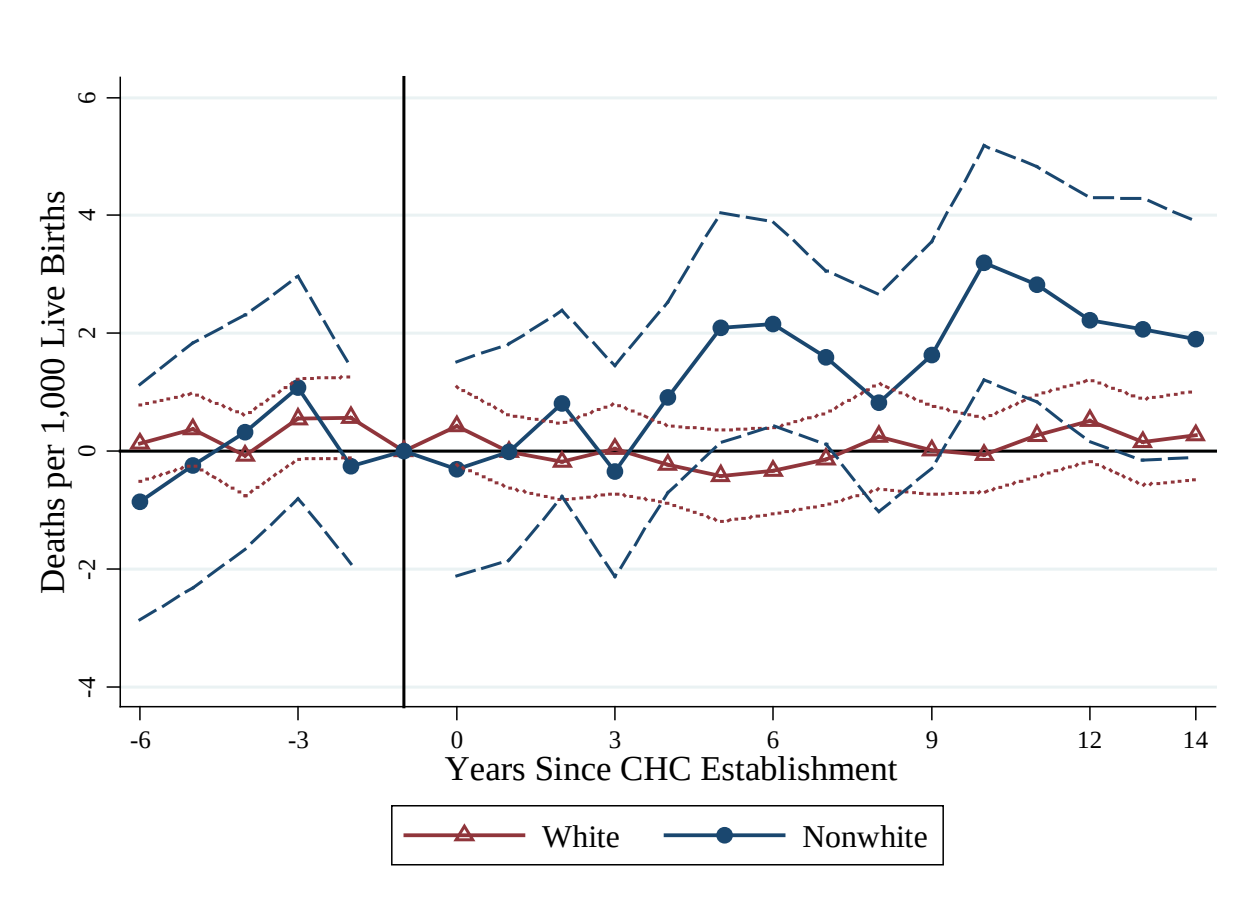
Notes: The figure presents results from model 2, but the sample of treated counties only includes the 88 counties funded after 1967 to show 9 years of pre-CHC results rather than 6.

Figure G2. Changes in All-Cause Mortality Rates with the Establishment of a Community Health Center, All Centers Funded between 1965 and 1980, by Urban Status



Notes: The figure presents weighted and unweighted results from model 2. See notes to figure 5 and figure 6.

Figure G3. Changes in Infant Mortality Rates by Race with Establishment of a Community Health Center



Notes: see notes to Figure 7.

Table G1. Changes in All-Cause Mortality Rates with the Establishment of a Community Health Center, All Age Groups

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	A. DV: Deaths per 1,000 Infants				*B. DV: Deaths per 100,000 Children*			
Mean at t=-1*	21.4				64.3			
Years -6 to -2	0.46	0.19	0.20	0.38	-0.67	-0.58	-0.91	-1.27
	[0.22]	[0.21]	[0.22]	[0.26]	[0.79]	[0.81]	[0.88]	[0.90]
Years 0 to 4	0.15	0.09	0.07	0.26	1.11	0.62	0.97	-0.90
	[0.20]	[0.19]	[0.19]	[0.23]	[0.67]	[0.76]	[0.81]	[0.88]
Years 5 to 9	-0.01	0.12	0.07	0.08	1.45	0.12	1.03	-0.87
	[0.30]	[0.23]	[0.27]	[0.38]	[1.02]	[0.86]	[1.02]	[0.85]
Years 10 to 14	0.36	0.49	0.42	0.40	0.65	-0.75	0.78	-1.10
	[0.32]	[0.24]	[0.35]	[0.35]	[1.10]	[0.87]	[1.36]	[1.04]
R^2	0.6	0.6	0.6	0.9	0.2	0.2	0.3	0.7
	C. DV: Deaths per 100,000 Adults				*D. DV: Deaths per 100,000 Older Adults*			
Mean at t=-1*	290.5				3212.8			
Years -6 to -2	-4.97	-3.48	-4.37	-3.01	10.59	-1.97	-3.26	5.31
	[2.56]	[2.01]	[2.21]	[1.93]	[10.21]	[8.00]	[8.07]	[11.08]
Years 0 to 4	4.22	0.44	1.64	0.37	-29.54	-41.10	-38.20	-30.50
	[2.86]	[2.24]	[2.55]	[2.90]	[13.71]	[9.56]	[8.89]	[11.34]
Years 5 to 9	6.19	-3.82	-0.36	0.44	-58.39	-71.96	-62.25	-49.07
	[5.06]	[2.61]	[3.75]	[3.83]	[17.33]	[14.79]	[11.70]	[15.68]
Years 10 to 14	4.13	-8.05	-2.51	-3.65	-48.72	-64.08	-46.85	-60.97
	[5.88]	[3.34]	[4.81]	[3.90]	[21.08]	[19.26]	[15.33]	[18.59]
R^2	0.37	0.43	0.47	0.82	0.78	0.80	0.84	0.96
Covariates	C, U-Y	C, U-Y, S-Y, R, D·Year	C, U-Y, S-Y, R, C·Year	C, U-Y, S-Y, R, P-weights	C, U-Y	C, U-Y, S-Y, R, D·Year	C, U-Y, S-Y, R, C·Year	C, U-Y, S-Y, R, P-weights

See notes to table 2.

Table G2. Changes in Cause-Specific Mortality Rates with the Establishment of a Community Health Center, Children and Adults

DV Cause:	(1) Heart Disease	(2) Cerebrovascular Disease	(3) Cancer	(4) Infectious Disease	(5) Diabetes	(6) Accident
			A. Deaths per 100,000 Children			
Mean at t^*=-1	*1461.1*	*424.4*	*607.4*	*127.2*	*72.3*	*92.6*
Years -6 to -2	0.03	-0.06	0.57	-0.07	-0.01	-0.70
	[0.11]	[0.08]	[0.24]	[0.28]	[0.04]	[0.52]
Years 0 to 4	-0.03	-0.09	0.65	-0.03	0.02	-0.48
	[0.11]	[0.09]	[0.23]	[0.27]	[0.04]	[0.53]
Years 5 to 9	-0.05	-0.15	0.28	0.20	0.04	-0.65
	[0.12]	[0.09]	[0.24]	[0.29]	[0.04]	[0.59]
Years 10 to 14	-0.08	-0.16	0.34	0.33	0.02	-1.10
	[0.14]	[0.09]	[0.25]	[0.28]	[0.04]	[0.60]
R^2	0.02	0.04	0.10	0.22	0.02	0.10
			B. Deaths per 100,000 Adults			
Mean at t^*=-1	*2,821.3*	*885.2*	*967.4*	*243.8*	*133.9*	*141.8*
Years -6 to -2	0.37	0.31	0.85	0.37	-0.05	-0.70
	[0.89]	[0.42]	[0.64]	[0.32]	[0.21]	[0.74]
Years 0 to 4	-0.65	-0.33	-0.20	-0.64	0.03	1.13
	[0.90]	[0.40]	[0.62]	[0.35]	[0.21]	[0.72]
Years 5 to 9	-1.26	-0.87	-0.54	-1.07	-0.10	0.51
	[1.03]	[0.41]	[0.65]	[0.56]	[0.20]	[0.87]
Years 10 to 14	-0.93	-1.04	0.11	-0.73	-0.24	0.21
	[1.08]	[0.46]	[0.75]	[1.32]	[0.22]	[0.83]
R^2	0.3	0.2	0.1	0.3	0.0	0.1

See notes to table 3.

Table G3. Effect of Cumulative Community Health Center Grant Funds on Age-Adjusted Mortality

	(1)	(2)	(3)	(4)
	DV: Age-Adjusted Mortality, All Ages			
Mean at t^*=-1	929.3			
Cumulative CHC Grant Amounts (Millions of 2010 Dollars)	-0.16	-0.35	-0.35	-0.38
	[0.06]	[0.07]	[0.07]	[0.09]
R^2	0.82	0.85	0.87	0.96
Covariates	C, U-Y	C, U-Y, S-Y, R, D·Year	C, U-Y, S-Y, R, C·Year	C, U-Y, S-Y, R, P-weights

Notes: The table presents the estimated coefficient on the running sum of CHC grant dollars. For untreated counties this is zero. For treated counties, this is zero before CHC establishment and weakly increases in each year thereafter. The sums stop (and are constant) in 1974.

Table G4. Changes in Age-Specific Mortality Rates with the Establishment of a Community Health Center

	(1)	(2)	(3)	(4)
	A. DV: Age-Adjusted Mortality Rates, Ages 50-64			
Mean at t^*=-1	1,482.0			
Years -6 to -2	-0.60	-2.8	-6.7	-0.4
	[7.0]	[6.4]	[7.1]	[7.2]
Years 0 to 4	-3.3	-14.0	-8.2	-9.3
	[8.1]	[6.5]	[6.0]	[7.3]
Years 5 to 9	-18.5	-32.5	-15.2	-18.9
	[10.0]	[9.8]	[7.6]	[9.9]
Years 10 to 14	-18.2	-35.3	-7.9	-27.6
	[12.9]	[12.9]	[9.3]	[11.8]
R^2	0.54	0.58	0.62	0.89
	B. DV: Age-Adjusted Mortality Rates, Ages 65-79			
Mean at t^*=-1	4,627			
Years -6 to -2	16.9	-7.6	-4.6	-15.9
	[20.7]	[17.0]	[18.7]	[24.6]
Years 0 to 4	-61.8	-66.2	-67.8	-101.2
	[25.2]	[18.6]	[17.6]	[30.1]
Years 5 to 9	-107.8	-110.5	-112.7	-112.2
	[31.0]	[26.1]	[21.6]	[35.6]
Years 10 to 14	-86.7	-88.4	-90.8	-90.5
	[38.1]	[32.9]	[27.2]	[39.3]
R^2	0.66	0.69	0.73	0.91
	C. DV: Age-Adjusted Mortality Rates, Ages 80+			
Mean at t^*=-1	13,700			
Years -6 to -2	96.6	38.7	41.8	60.9
	[70.2]	[63.5]	[64.6]	[85.9]
Years 0 to 4	-107.4	-159.1	-161.9	-166.0
	[78.0]	[64.9]	[68.4]	[74.6]
Years 5 to 9	-183.4	-244.9	-250.5	-219.1
	[98.4]	[81.4]	[88.0]	[88.6]
Years 10 to 14	-141.4	-212.9	-194.0	-217.3
	[116.3]	[95.0]	[115.2]	[103.4]
R^2	0.54	0.58	0.63	0.87
Covariates	C, U-Y	C, U-Y, S-Y, R, D·Year	C, U-Y, S-Y, R, C·Year	C, U-Y, S-Y, R, P-weights

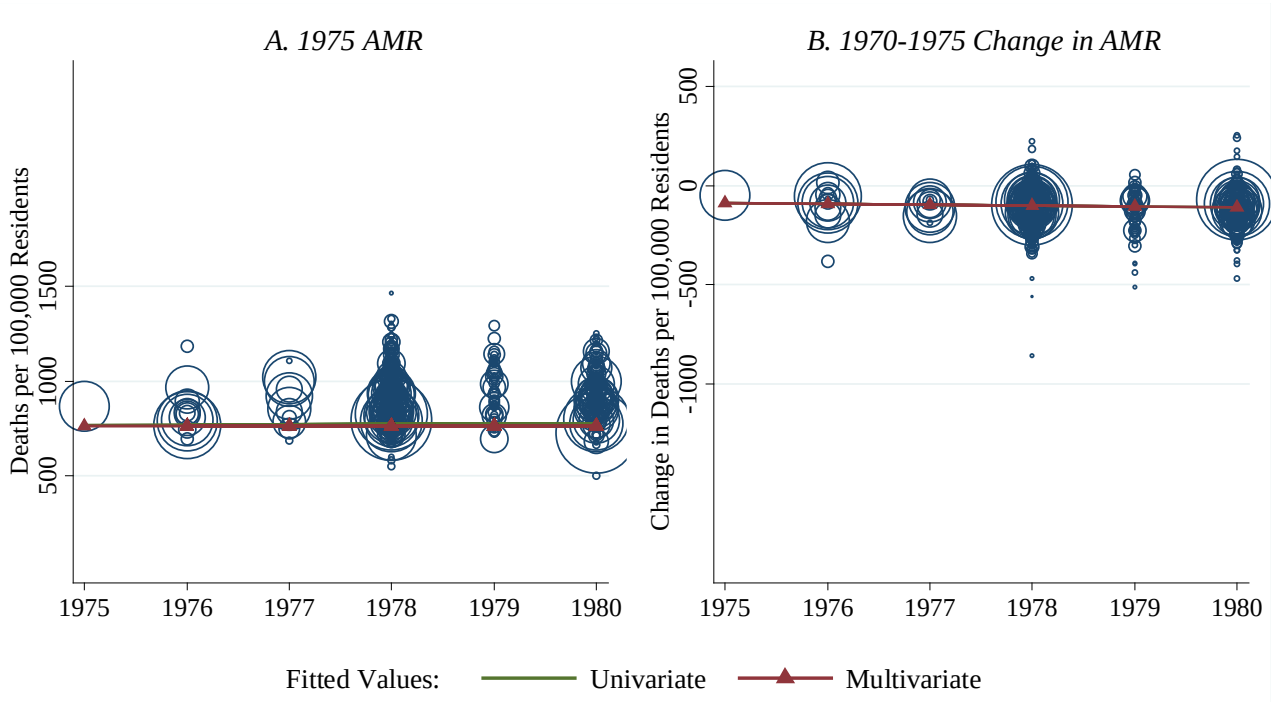
Notes: See table 2 notes.

ONLINE APPENDIX H: ESTIMATES AND FIGURES INCLUDING CHCS FIRST FUNDED FROM 1975-1980

From the paper:
THE WAR ON POVERTY'S EXPERIMENT IN PUBLIC MEDICINE:
COMMUNITY HEALTH CENTERS AND THE MORTALITY OF OLDER AMERICANS

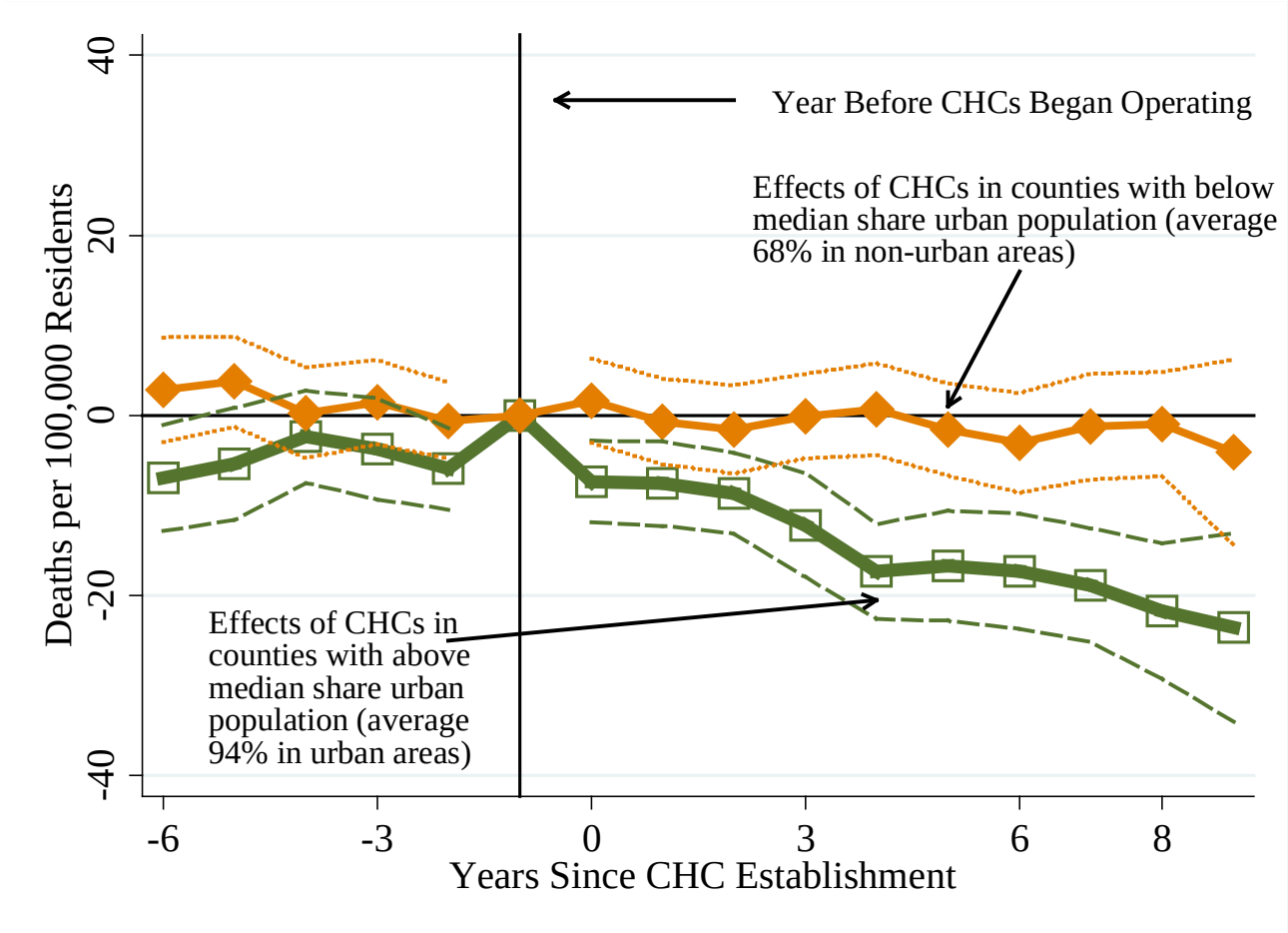
Martha J. Bailey and Andrew Goodman-Bacon

Figure H1. Age-Adjusted Mortality Rates before the Community Health Center Program Began, Centers Funded in 1975-1980



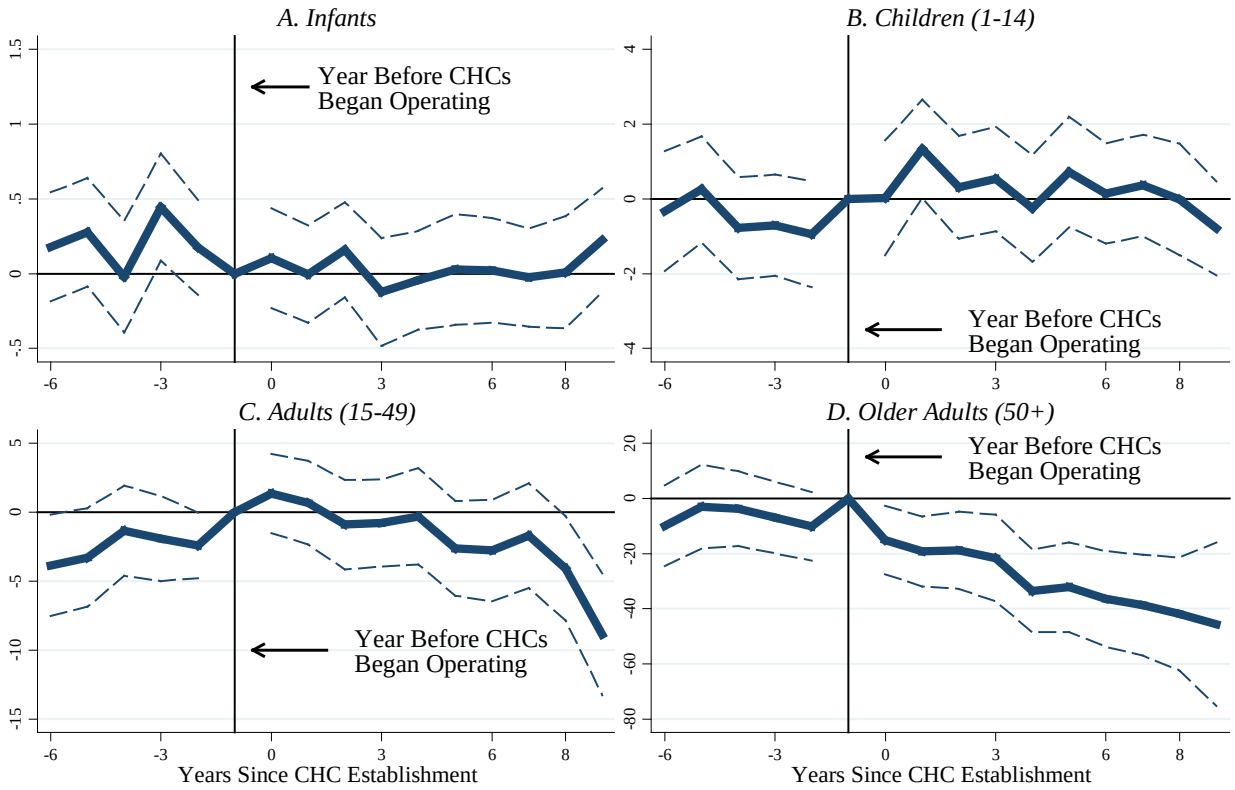
Notes: The dependent variable refers to (levels of or changes in) age-adjusted mortality rates (deaths per 100,000 residents). Univariate fitted values are from regressions of the dependent variable on the year CHCs were established for the 499 counties that first received CHCs between 1975 and 1980. The estimated univariate slopes are 2.1 (s.e. = 6.3) for panel A, and -4.4 (s.e. = 1.8) for panel B. Multivariate fitted values are from regressions that also include the 1960 share of the county population that is urban, rural, between ages 0 and 4, older than 64, nonwhite, has more than 12 years of education, has less than 4 years of education, has family income less than $3,000, has family income more than $10,000; and the per-capita number of physicians (see table 1). The estimated multivariate slopes are 0.3 (s.e. = 3.2) for panel A and -4.2 (s.e. = 2.2) for panel B. Source: See figures 1 and 2.

Figure H2. Heterogeneity in the Relationship between Community Health Centers and Mortality Rates by Population Density, All CHCs 1965-1980



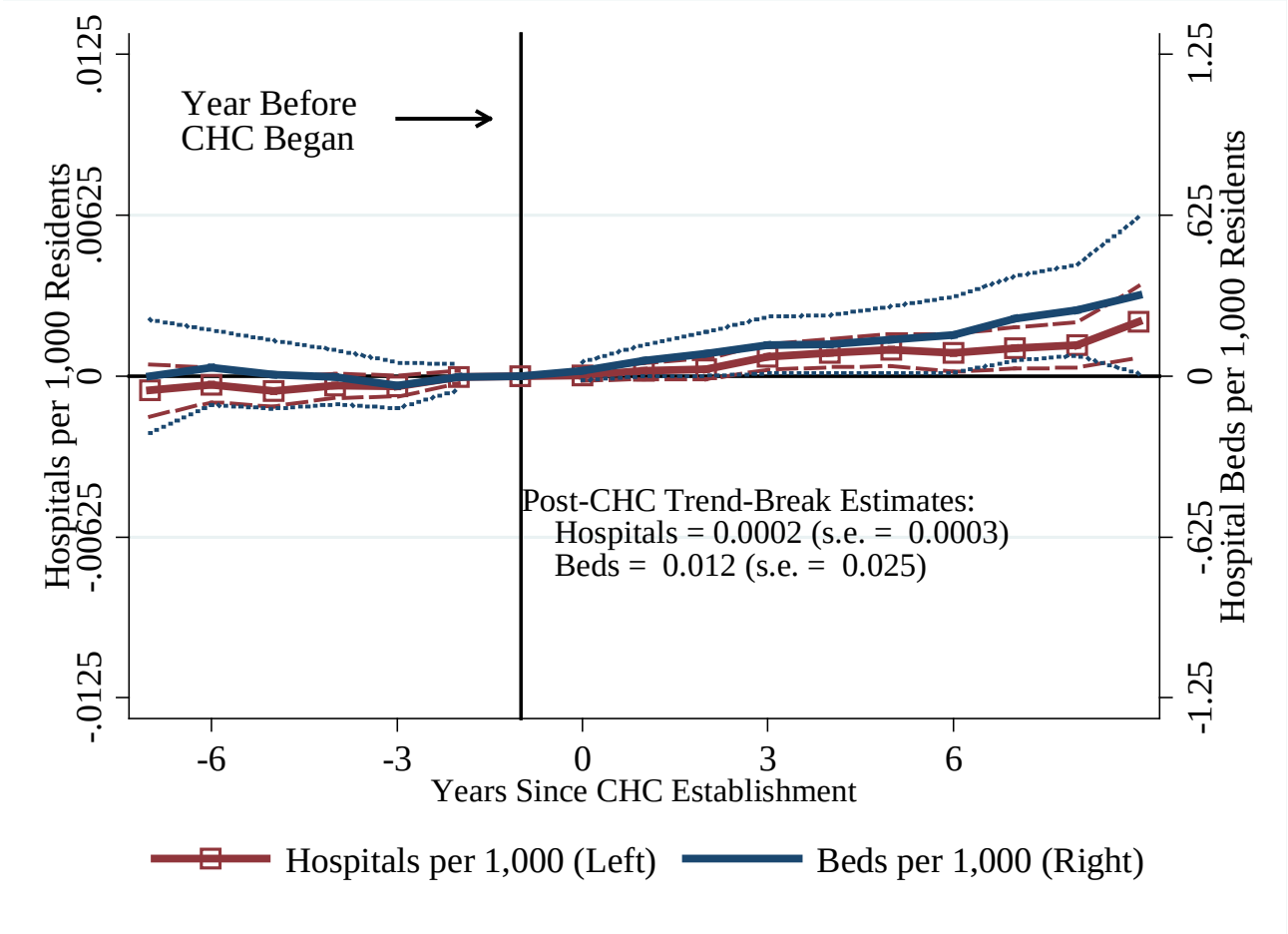
Notes: The coefficients are weighted, least-squares estimates of π and τ from our baseline specification of equation 1 where the event-study dummies are estimated separately for areas with above (labeled "urban") and below (labeled "non-urban"), based on the median urban share of the population among treated counties in 1960. See figure 5 notes for details on the specification and sources.

Figure H3. The Relationship between Community Health Centers and Age-Group Mortality Rates, All CHCs 1965-1980



Notes: The dependent variable is the all-cause, age-adjusted mortality rate for the indicated age group. Infant mortality is measured per 1,000 live births and mortality rates for other groups are measured per 100,000 residents. Weights are the appropriate county populations in 1960. Infant sample: 2,963 counties with valid data on 1960 characteristics identified in both mortality and natality files (88,890 county-year observations). Mean of infant mortality rate in treated counties in t-1: 22.1. Non-infant sample: 3,044 U.S. counties with valid data on 1960 characteristics (91,320 county-year observations). Mean of AMR in treated counties in t-1 for children is 63.8; for adults is 287.6; and for older adults is 3225.9. See notes to figure 5 for details.

Figure H4. Relationship between Community Health Centers Establishment and Hospital Capacity, CHCs founded 1965-1980



Notes: This figure includes all CHCs established from 1965 to 1980, whereas figure 9B in the text contains only CHCs established from 1965 to 1974. See figure 9B for specification notes and sources.

Table H1. Relationship between Community Health Centers and All-Cause Mortality Rates, CHCs founded 1965-1980

	(1)	(2)	(3)	(4)
	A. Age-Adjusted Mortality, All Ages			
Mean at t^*=-1	844.5			
Years -6 to -2	0.50	-2.4	-2.2	-2.5
	[1.8]	[1.5]	[1.5]	[1.6]
Years 0 to 4	-3.5	-5.5	-5.5	-7.5
	[2.0]	[1.5]	[1.5]	[1.6]
Years 5 to 9	-7.7	-10.0	-9.9	-13.1
	[2.6]	[2.1]	[2.2]	[2.3]
R^2	0.00	0.00	0.00	0.00
	B. Age-Adjusted Mortality, 50 Years and Older			
Mean at t^*=-1	2,915			
Years -6 to -2	5.2	-6.7	-4.0	-6.9
	[6.6]	[5.4]	[5.4]	[5.7]
Years 0 to 4	-16.5	-21.4	-23.4	-26.7
	[8.1]	[5.9]	[5.6]	[6.5]
Years 5 to 9	-33.8	-36.7	-40.0	-44.3
	[10.5]	[8.4]	[7.6]	[9.1]
R^2	0.00	0.00	0.00	0.00
Covariates	C, U-Y	C, U-Y, S-Y, R, D·Year	C, U-Y, S-Y, R, C·Year	C, U-Y, S-Y, R, P-weights

Notes: Models presented are weighted least-squares estimates of equation 1 using event-year categories. C: county fixed effects; U-Y: urban by year fixed effects; S-Y: state-by-year fixed effects; R: annual, county-level covariates; D·Year: 1960 characteristics interacted with linear time trends; C·Year: county-specific linear time trends; P-weights: uses an estimate of the propensity of receiving a CHC to reweight untreated counties. See text for more details. Weights are the appropriate county populations in 1960. See notes to figure 5 and 6 for details on sample and sources.

Table H2. The Relationship between Community Health Centers and Cause-Specific Mortality Rates for Older Adults, CHCs founded 1965-1980

DV Cause:	(1) All-Cause	(2) Heart Disease	(3) Cerebrovascular Disease	(4) Cancer	(5) Infectious Disease	(6) Diabetes	(7) Accident
			A. Age-Adjusted Mortality, Older Adults (50+)				
Mean at t^*=-1	*3,227*	*1461.1*	*424.4*	*607.4*	*127.2*	*72.3*	*92.6*
Years -6 to -2	-6.7	0.02	0.9	-5.9	1.4	-0.3	-1.3
	[5.4]	[4.07]	[1.8]	[2.0]	[1.2]	[0.7]	[0.9]
Years 0 to 4	-21.4	-7.3	-4.9	-5.1	-0.3	-0.2	-0.7
	[5.9]	[3.5]	[2.0]	[2.1]	[1.1]	[0.7]	[0.8]
Years 5 to 9	-36.7	-14.0	-6.8	-6.6	-0.4	-0.8	-1.0
	[8.4]	[5.0]	[2.5]	[2.8]	[1.5]	[0.8]	[1.0]
R^2	0.80	0.80	0.77	0.25	0.31	0.20	0.33
			B. Age-Adjusted Mortality, Ages 50-64				
Mean at t^*=-1	*1,465*	*564.5*	*120.8*	*370.0*	*50.1*	*31.5*	*60.4*
Years -6 to -2	-3.4	-1.1	0.3	-1.9	0.5	-0.3	-0.9
	[4.4]	[3.2]	[1.0]	[1.9]	[0.7]	[0.5]	[0.8]
Years 0 to 4	-6.4	-3.3	-1.1	-0.6	-0.4	-0.7	-0.1
	[4.0]	[2.5]	[1.0]	[1.9]	[0.7]	[0.5]	[0.9]
Years 5 to 9	-16.0	-4.8	-2.0	-2.8	-1.2	-0.8	-0.3
	[5.4]	[3.1]	[1.2]	[2.3]	[0.7]	[0.6]	[0.9]
R^2	0.58	0.58	0.48	0.09	0.22	0.08	0.14
			C. Age-Adjusted Mortality, Ages 65+				
Mean at t^*=-1	*5,898*	*2,821.3*	*885.2*	*967.4*	*243.8*	*133.9*	*141.8*
Years -6 to -2	-10.1	2.1	2.0	-11.5	3.0	-0.2	-2.0
	[11.5]	[7.9]	[4.1]	[4.2]	[2.5]	[1.5]	[1.7]
Years 0 to 4	-41.7	-12.5	-10.5	-11.4	0.0	0.4	-1.6
	[12.7]	[7.3]	[4.7]	[4.3]	[2.4]	[1.4]	[1.4]
Years 5 to 9	-67.8	-27.2	-14.5	-12.5	0.8	-0.8	-2.1
	[16.9]	[9.9]	[5.8]	[5.2]	[3.1]	[1.5]	[1.9]
R^2	0.76	0.76	0.73	0.22	0.23	0.17	0.29

Notes: The dependent variable is the age-adjusted, age-group specific mortality rate by cause for our baseline specification. See notes to figure 5 and table 3 for details on the sample and sources.

Table H3. Heterogeneity in the Relationship between Community Health Centers and Mortality Rates, All CHCs Begun 1965-1980

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Mean at t^*=-1	*2,567*	*2,964*	*2,778*	*2,753*	*3,306*	*2,694*	*2,725*	*2,753*	*2,748*	*2,798*
Years -6 to -2	-16.4	2.4	-5.8	-6.7	23.1	-8.4	0.7	-9.2	-12.1	-6.2
	[7.7]	[6.9]	[14.0]	[5.8]	[18.3]	[6.0]	[6.0]	[6.0]	[6.8]	[6.1]
Years 0 to 4	-5.3	-34.3	-9.6	-23.3	-7.7	-24.9	-19.8	-23.3	-19.6	-20.6
	[7.3]	[7.9]	[11.3]	[6.6]	[19.6]	[6.2]	[6.0]	[7.0]	[7.2]	[6.4]
Years 5 to 9	-2.3	-64.3	-2.0	-42.1	-26.6	-39.8	-36.3	-35.0	-29.0	-40.9
	[10.1]	[10.9]	[12.9]	[9.6]	[24.9]	[9.0]	[9.0]	[10.2]	[9.7]	[9.1]
R^2	0.81		0.80		0.80		0.75	0.81	0.85	0.80
Characteristic defining stratification	1960 AMR		1960 MDs per capita		Race		Dropping One Region at a Time			
	Below Median	*Above Median*	*Below Median*	*Above Median*	*Nonwhite*	*White*	*NE*	*MW*	*S*	*W*
Mean characteristic in group	*2,567*	*2,964*	*0.4*	*1.3*	100	100				

The dependent variable is the AMR. This table reports model 2 estimates of the effects of $\tilde{\pi}_y^k$ and $\tilde{\tau}_y^k$ obtained by replacing equation 1's event-study dummies with $\sum_k \left(\sum_{g=-2}^{-1} \tilde{\pi}_g^k D_j^k D_j^g + \sum_{y=0}^{3} \tilde{\tau}_g^k D_j^k D_j^g\right)$, where D_j^k is equal to 1 if the county received a CHC between 1965 and 1974 *and* belongs to group *k*. *k* is defined as the group of treated counties with the indicated characteristic. Columns (7)-(10) are from separate regressions, each dropping one region from the analysis at a time as indicated in the column header, and are for 2,832, 1,996, 1,661, and 2,643 counties, respectively.