Table 8. Summary of Studies Comparing Health Care Outcomes and Mortality						
Study	Study Population	Data Time Period	Data Source	Metrics	Main Findings	Methodological Notes
Studies Examining Effects on Overall Mortality						
Dowd et al. 2011	Medicare beneficiaries ages 65+ eligible for Parts A and B, not institutionalized, not dually eligible for Medicare/Medicaid coverage, and who were in Medicare HMOs or TM.	1996-2000	1996 and (unduplicated) 1998 Medicare Current Beneficiary Survey, linked to Medicare enrollment and benefits data.	Two-year mortality rates. Analysis used advanced econometric techniques to control for selection into health plans (socio-demographics, health and functional status, smoking history, and 19 self-reported conditions). Health plan choice and mortality are estimated simultaneously to predict TM and HMO mortality for each beneficiary, which was used to calculate a mean mortality differential.	Average predicted mortality does not differ statistically between sectors. Results are somewhat sensitive to geographical specifications used as a partial control for geographical differences in enrollment.	The data used in this study are from 1996-2000 but its focus is methodological, with an assessment of methods used in earlier studies showing favorable mortality in Medicare HMOs. Authors conclude that their findings indicate that adjustments for unobserved confounding are critical to comparing outcomes between HMOs and TM.
Studies Examining Stage of Cancer Diagnosis and Outcomes						
Ward et al. 2010	Patients ages 55-74, newly diagnosed with 8 common types of cancer. The main comparison is between those 55-64 and 65-74 by insurance status.	2005-2007	National Cancer Database, a hospital-based registry that includes about 70% of all malignant cancer patients in the U.S. who are treated at 1,400 U.S. facilities.	Likelihood of late stage diagnosis (III) for each cancer for Medicaid, privately-insured, and several options of Medicare coverage (alone, with Medicaid, Medicare Managed Care, and Medicare with supplement).	There was wide divergence in stage of diagnosis for all cancers by insurance type. Relative risks of late-stage cancer generally were higher for the uninsured and Medicaid than for any type of Medicare coverage. Late-stage diagnoses generally were lowest for Medicare+supplement and private insurance, however. Among Medicare beneficiaries, late-stage diagnoses for some cancers were more likely for those with Medicare alone or Medicare/Medicaid than for Medicare managed care or Medicare with a supplement. For most cancers, late diagnosis adversely affects survival rate.	Study was more focused on gaps in coverage (especially before age 65) than on differences within Medicare. Only about 5% of those 65+ had Medicare managed care and these may vary geographically. Insurance type may not be that well measured. Authors note that Medicaid patients may have been uninsured for part of the year.

			Table 8 _(continued)_. Summary of Studies Comparing Health Care Outcomes and Mortality			
Study	Study Population	Data Time Period	Data Source	Metrics	Main Findings	Methodological Notes
Studies Examining Stage of Cancer Diagnosis and Outcomes _(continued)_						
Sadetsky et al. 2008	Men ages 65+ having newly diagnosed prostate cancer with localized disease, divided into 8 insurance categories: HMO, PPO, VA, Medicare alone, Medicare+supplement, Medicare+FFS, Medicare+HMO, Medicare+PPO.	1995–2005	The CaPSURE database, a longitudinal database of 13,124 men with prostate cancer. Authors say the sample represents a broad geographic, practice, and insurance status spectrum.	Risk stage at diagnosis, type of treatment, and survival. Treatments include radical prostatectomy (RP), external beam radiation (EBRT), brachytherapy (BT), hormonal therapy, or expectant management (EM).	No effects of insurance type on survival and clinical risk at diagnosis after statistical controls. After adjusting for clinical risk status, socio-demographics, comorbidities, and year of diagnosis, insurance type remained statistically significantly associated with treatment type. Patients in HMOs, PPOs, and VA were more likely to receive brachytherapy and hormonal treatment than radical prostatectomy compared to those on Medicare alone. Patients in Medicare with supplements and Medicare PPOs were less likely to receive those treatments.	Insurance subgroups are self-reported, and may include spousal coverage. Primary insurance is not entirely clear. Norms for assessing appropriate treatment in this area also are not clear and have been evolving over time.
Riley et al. 2008	Medicare beneficiaries diagnosed with prostate (males), breast (female), and colorectal (all) cancer at ages 65–79 in Medicare Managed Care (mainly HMOs at this time), and TM beneficiaries eligible for Parts A and B in counties with at least 3 Medicare managed care cancer	1998–2002	The National Cancer Institute's Surveillance, Epidemiology and End-Results (SEER) registries, covering about 20% of the U.S. population, linked to Medicare enrollment and claims files.	SEER-coded metrics on stage of diagnosis (generally late vs. early) and use of selected treatments.	For prostate and colorectal cancers, there is no difference in stage of diagnosis, but HMOs used less intense treatment (less radical prostatectomy, fewer nodes resected for colon cancer). Breast cancer was diagnosed earlier in Medicare HMOs but not treated any differently across the two settings. Managed care plans were heterogeneous in treatment patterns, however.	The study focuses specifically on Medicare experience. Researchers did not have data on comorbidity to adjust for patient mix or (for TM) supplemental coverage. They also note that the completeness of reporting could differ between managed care and TM sectors.
Kirsner et al. 2005	Medicare beneficiaries ages 65+ with Parts A and B in HMOs and TM who were diagnosed with primary melanoma.	1985–1994	Medicare enrollment files and NCI's SEER program database; covers about 14% of the U.S. population.	Stage of diagnosis and SEER mortality rate data. Each HMO patient was matched with two TM patients by age, sex, year of diagnosis, stage at diagnosis, and geographical area of residence.	HMO patients were diagnosed at an earlier stage compared with matched TM patients. They also had improved survival rates; analysis indicates this appears to be due to earlier diagnosis. Outcomes were the same across systems for those with a cancer history before melanoma diagnosis.	Data are now old (1985-1994); authors note that participants in SEER generally are urban and concentrated in the western U.S., where several large established HMOs operate, thus potentially limiting generalizability.

Table 8 *(continued).* Summary of Studies Comparing Health Care Outcomes and Mortality						
Study	Study Population	Data Time Period	Data Source	Metrics	Main Findings	Methodological Notes
Studies Examining Stage of Cancer Diagnosis and Outcomes *(continued)*						
Lee–Feldstein et al. 2002	Medicare patients 65+ in northern California diagnosed with colorectal cancer and included in a cancer registry. Comparison between group and non-group Medicare HMOs and three TM categories: with supplement, dual eligible, and Medicare alone.	1987-1993	The Cancer Surveillance Program Region 3 (Sacramento), one of 10 population-based cancer registries. It identifies 1,329 patients in 13 counties.	Two main outcomes: (1) stage of cancer diagnosis, holding constant age, ethnicity, tumor location, and education, with late stage defined as stages III and IV vs. I and II; and (2) survival (all-cause mortality and colorectal cancer mortality) as a function of insurance type, hospital type, and stage of diagnosis, as well as previous controls.	Likelihood of early stage colorectal cancer diagnoses was greater for Medicare patients in non-group model HMOs or TM having private supplements than for those in group model HMOs, Medicare/Medicaid, or traditional Medicare alone. Survival rates generally did not differ significantly across groups, though Medicare/Medicaid patients had significantly greater all-cause mortality than TM patients with a supplement.	Data are now old (1987-1993) and the study included only a single geographical area. There was only one group HMO, though nine non-group plans. Researchers had no direct measure of socioeconomic status or comorbidity available as a control. Insurance data reflect point of hospitalization, not necessarily initial diagnosis.
Effects on Functional Status						
Porell and Miltiades 2001	Noninstitutional Medicare patients ages 65+ who are continuously eligible for Parts A and B Medicare during two successive years over the time frame. Compares Medicare HMO enrollees (enrolled 10+ months at baseline) and TM beneficiaries with and without a Medicare supplement.	1991-1996	Access to Care supplements to the Medicare Current Beneficiary Survey	Self-reported functional status changes in successive years. Five hierarchical categories: independent, functional limitations, IADL disability, moderate ADL disability, and severe ADL disability, with the last two categories combined. Analysis controls for socio-demographic characteristics, health behaviors, health status, and chronic disease.	Both independent Medicare HMO enrollees and TM beneficiaries with private supplemental insurance are less likely to become disabled than TM beneficiaries with no supplemental coverage. Among those with a disability, HMO enrollment had no effect on increased survival, but having Medicare+supplement did.	This study uses data that are now old (1991-1996) and has a small HMO sample. HMO members also were not matched geographically to others and the survival analyses included a limited number of people. Data on health and functional status are self-reported. Statistics are not adjusted for the MCBS's complex sample design.

SOURCE: Authors' analysis based on review of published papers.