Appendix I. Evidence Tables

Evidence Table 1. Trials of Case Management for Older Adults with One or More Chronic Diseases

| **Author,  Year (Quality)** | **Study Purpose and/or *A Priori* Hypothesis (if stated)** | **Eligibility Criteria** | **Exclusion Criteria** | **Study Design/Type Duration of Intervention** | **Demographics: Age (Mean, Median and Range) Gender (% Female) Race and/or ethnicity  Socioeconomic Status** | **Primary Disease of Population (and other medical comorbidities and/or coexisting mental illness)** | **Description of Factors of Complex Care Needs** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Boult 20118  Boult 200810  Boyd 201011  Wolff 20109  (Good) | To measure the effect of guided care teams on multi morbid older patients’ use of health services. | >65 years or older and at high risk of using health services heavily during the following year, as estimated by the claims based hierarchical condition category predictive model in the highest quartile. | NR | Cluster randomized trial, 20 months | Mean age: 77.5 years Age range: 66-106 55% Female 51% White 55% reported have inadequate finances | 81% Hypertension; 19% CHF; 21% COPD, asthma or emphysema; 49% diabetes; 27% cancer (not skin) | 42% self-reported fair/poor health, 4.3 average of chronic conditions |
| Fitzgerald 199430  (Fair) | Assess the efficacy of case managers to increase outpatient general internal medicine primary care contacts and reduce subsequent hospital readmissions and emergency department visits among men discharged from the hospital. Hypothesized that patients with case manager intervention would have more post discharge general medicine clinic visits and fewer subsequent nonelective hospital admissions and days of hospitalization than patients with usual care. | Male Discharged from general medicine services between 11/01/1988 and 10/31/1990; 45+ years; received primary care in the hospital's clinics;  lived in the primary service area of the hospital; access to a telephone | Lived outside the primary service area;  considered terminally ill. | Randomized trial, followed up to 12 months | Age:  intervention 64.4±7.7 comparator 64.6±7.7 p=0.76  Race % white: intervention 82% comparator 82%  p=0.99 Family income ≥ $14,000/year %: intervention 31% comparator 24% p=0.12 | COPD, hypertension, diabetes, heart disease, alcohol dependency | Number of comorbidities, high risk for rehospitalization. |
| Latour 200651  Latour 2007156  (Fair) | To determine the impact of post-discharge, nurse-led, home-based, case management intervention on the resource utilization, quality of life and health outcomes. | Admitted to the departments of internal medicine, gastroenterology, pulmonology, and/or cardiology; admitted at least once (≥2 nights) in the previous 5 years; resident of the municipality of Amsterdam; age ≥ 18 years; able to speak Dutch or English. | Discharged to non-independent living accommodation; had a MMSE score of < 21 (and no relative who help completing questionnaires); or planned readmissions (e.g., chemotherapy visits). | Randomized trial, 24 weeks | Age Mean: 64 years  50% Female Race: NR | General medical outpatients 1) Endocrine, 6.8% Circulation, 30.6% Respiratory,17% GI, 20.4% Note: determined by medical ICD-9 codes 2) Mean total depression score: 7 (Did not report those with depression diagnosis) | NR |
| Martin 200461  (Good) | To examine the effect of population- based disease management and case management on resource use, self-reported health status, and member satisfaction within an HMO, Medicare Plus Choice. Implemented the Senior Life Management Program. | >65 years, signed consent on their health plan enrollment form to participate, and continuously enrolled with the health plan for all of 1999. | NR | Randomized controlled open trial of case management and population-based disease management, 18 months  Note: 38.5% (1640 patients) evaluate for CM. | Mean age: 73 years 53% Female Race: NR | Medicare beneficiaries >65 years 1) NR 2) NR | NR |
| Newcomer 200478  (Fair) | To report the effectiveness of a program intended to complement the primary care of high-risk geriatric patients using nurse case managers. Hypothesis was that those in ECM would have lower utilization and expenditures and higher health status than those in usual care | Active PacifiCare member as of 1/1/2000; age ≥ 80 years or age ≥ 65 with at least one qualifying condition (i.e., COPD, CHF, coronary disease, diabetes) and receiving care from a Sharp Health Care clinic. | Living in nursing home, Alzheimer’s facility, or hospice; end-stage renal diseases; histories of organ transplants at the time of baseline data collection; using VA or other military-connected health care benefits | Randomized trial, 12 months  Article reports of the Elders in Managed Care Program of one site. | Age: 70% ≥ 80 years Gender: 60% female Race: 88% White Education: 23% more than high school Income: 70% ≤ $20,000/year | High-risk elderly 1) Coronary Artery Disease: 66% Diabetes: 25% 2) Depression: 7% | # of chronic conditions:  a) at least 2 =7% b) 3 or more =2% |
| Peikes 2009 (a)82   Site: Carle - Integrated Delivery System  (Good) | MCCD- comparison of 15 programs describing to determine whether care coordination programs improved quality of care for chronically ill Eligible-fee-for-service Medicare beneficiaries and reduced hospitalizations/ expenditures | Medicare beneficiaries (primarily > 65 years old) covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program. | End-stage renal disease, long-term nursing home, unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.), excluded patients with ESRD. | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 86% ≥ 65 years Gender: 47.5% male Race: 3.7% Black/Non-Hispanic Medicaid: 5.3% Education: 14% less than high school | CAD 45.5% CHF 27.7% Diabetes 28.5% COPD 21.1% Cancer 20.8% Stroke 13.5% 1) Depression 13.1% 2) Dementia 5.1% | Rural location Hospitalization within the year before random assignment for target diagnosis or other diagnosis Medicaid (proxy for poverty): 5% |
| Peikes 2009 (b)82  Site: CorSolutions - Provider of disease Care/Coordinated Care/QI services  (Good) | See above | Medicare beneficiaries (primarily > 65 years old)covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | End-stage renal disease  Long-term nursing home Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 72.8% ≥ 65 years Gender: 38.1% male Race: 30.5% Black/Non-Hispanic Medicaid: 27.9%  Education: 36.3% less than high school | CAD 83.5% CHF 96.4% Diabetes 55% COPD 49.8% Cancer 16.9% Stroke 40.1%  1) Dementia 12.3% 2) Depression 21.9% | Hospitalization within the year before random assignment for target diagnosis or other diagnosis Medicaid (proxy for poverty): 28% |
| Peikes 2009 (c)82   Site: Washington University - Academic Medical Center  (Good) | See above | Medicare beneficiaries (primarily > 65 years old)covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 63.5% ≥ 65 years Gender: 45.3% male Race: 36.8% Black/Non-Hispanic Medicaid:19.1 %  Education: 25.3% less than high school | CAD 54.8% CHF 41.5% Diabetes 42.2% COPD 31.4% Cancer 35.9% Stroke 23.7%  1) Dementia 11.5% 2) Depression 23.4% | Hospitalization within the year before random assignment for target diagnosis or other diagnosis Medicaid (proxy for poverty):19% |
| Peikes 2009 (d)82   Site: Avera - Community Hospital  (Good) | See above | Medicare beneficiaries (primarily > 65 years old)covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | Age < 65 years End-stage renal disease  Long-term nursing home SM: unable to learn self management (serious mental illness or dementia Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 80% ≥ 65 years Gender:52 % male Race: 0.1% Black/Non-Hispanic Medicaid:8.2 %  Education: 34% less than high school | CAD 75.4% CHF 96.7% Diabetes 40% COPD 42.5% Cancer 23.7% Stroke 21.1%  1) Dementia 4% 2) Depression 14.5% | Rural location Medicaid (proxy for poverty): 8% |
| Peikes 2009 (e)82  Site: CenVaNet - Provider of disease Care/Coordinated Care/QI services  (Good) | See above | Medicare beneficiaries (primarily > 65 years old) covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | Age < 65 years End-stage renal disease  SM: unable to learn self management (serious mental illness or dementia Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 87% ≥ 65 years Gender: 56.5% male Race: 14.9% Black/Non-Hispanic Medicaid: 8.2%  Education: 34% less than high school | CAD 73.4% CHF 47.8% Diabetes 50.7% COPD 27.9% Cancer 27.7% Stroke 26.4%  1) Dementia 4.8% 2) Depression 10.9% | Medicaid (proxy for poverty): 5% |
| Peikes  2009 (f)82  Site: Charlestown - Retirement Community  (Good) | See above | Medicare beneficiaries (primarily > 65 years old) covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | End-stage renal disease  Long-term nursing home Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 56.5% ≥ 65 years Gender: 34.5% male Race: 0.5% Black/Non-Hispanic Medicaid: 0%  Education: 10.2% less than high school | CAD 54.9% CHF 43.4% Diabetes 25.1% COPD 36.4% Cancer 32.3% Stroke 32%  1) Dementia 8.4% 2) Depression 18.7% | Medicaid (proxy for poverty): 0% |
| Peikes  2009 (g)82   Site: Health Quality Partners - Provider of disease Care/Coordinated Care/QI services  (Good) | See above | Medicare beneficiaries (primarily > 65 years old) covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | Age < 65 years End-stage renal disease  Long-term nursing home SM: unable to learn self management (serious mental illness or dementia Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 93% ≥ 65 years Gender: 39.7% male Race: 0.8% Black/Non-Hispanic Medicaid: 1.8%  Education: 1.6% less than high school | CAD 34% CHF 10.6% Diabetes 24.3% COPD 12.8% Cancer 22.2% Stroke 14.2%  1) Dementia 1.8% 2) Depression 8.3% | Hospitalization within the year before random assignment for target diagnosis or other diagnosis Medicaid (proxy for poverty): 2% rural location |
| Peikes  2009 (h)82   Site: Medical Care Development - Community Hospital  (Good) | See above | Medicare beneficiaries (primarily > 65 years old) covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | End-stage renal disease  SM: unable to learn self management (serious mental illness or dementia Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 82.4% ≥ 65 years Gender: 50.6% male Race: 0% Black/Non-Hispanic Medicaid: 20.7%  Education: 32% less than high school | CAD 78.3% CHF 48.5% Diabetes 41.6% COPD 31.8% Cancer 19% Stroke 17.3%  1) Dementia 2.3% 2) Depression 16.9% | Medicaid (proxy for poverty): 21% |
| Peikes  2009 (i)82  Site: Mercy Medical Center - Community Hospital  (Good) | See above | Medicare beneficiaries (primarily > 65 years old)covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | End-stage renal disease  Long-term nursing home Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age:78.6 % ≥ 65 years Gender: 54.6% male Race: 0.1% Black/Non-Hispanic Medicaid:11.6 %  Education: 29.7% less than high school | CAD 64.1% CHF 60.1% Diabetes 33.3% COPD 52.9% Cancer 23.6% Stroke 26.1%  1) Dementia 6.3% 2) Depression 24.2% | Hospitalization within the year before random assignment for target diagnosis or other diagnosis Rural location Medicaid (proxy for poverty): 12% |
| Peikes  2009 (j)82   Site: Qmed - Provider of disease Care/Coordinated Care/QI services  (Good) | See above | Medicare beneficiaries (primarily > 65 years old)covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | End-stage renal disease  Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 86.5% ≥ 65 years Gender: 44.5% male Race: 5.1% Black/Non-Hispanic Medicaid:13.7 %  Education: 19.7% less than high school | CAD 48.6% CHF 18.1% Diabetes 25.5% COPD 14.3% Cancer 19.8% Stroke 14%  1) Dementia 1.6% 2) Depression 9.5% | Hospitalization within the year before random assignment for target diagnosis or other diagnosis Medicaid (proxy for poverty): 14% |
| Peikes  2009 (k)82   Site: Georgetown - Academic Medical Center  (Good) | See above | Medicare beneficiaries (primarily > 65 years old)covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | End-stage renal disease  Long-term nursing home Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 82.6% ≥ 65 years Gender: 44.8% male Race: 63% Black/Non-Hispanic Medicaid: 21.3%  Education: NA | CAD 80.9% CHF 96.1% Diabetes 54.8% COPD 40% Cancer 23.9% Stroke 28.3%  1) Dementia 12.2% 2) Depression 14.3% | Hospitalization within the year before random assignment for target diagnosis or other diagnosis Medicaid (proxy for poverty): 21% |
| Peikes  2009 (l)82  Site: Quality Oncology - Provider of disease Care/Coordinated Care/QI services  (Good) | See above | Medicare beneficiaries (primarily > 65 years old) covered by FFS/traditional Medicare and had one or more of the chronic conditions targeted by the program | End-stage renal disease  Long-term nursing home Unusually complex (human immunodeficiency virus/AIDS, transplant recipient or candidate, or terminally ill.) | Randomized trial - coordinated care program treatment vs. usual care, 3 years | Age: 80.1% ≥ 65 years Gender: 45.5% male Race: 8.5% Black/Non-Hispanic Medicaid:13.7 %  Education: NA | CAD 46% CHF 18% Diabetes 25.1% COPD 32.2% Cancer 94.3% Stroke 14.2%  1) Dementia 5.7% 2) Depression 10.9% | Medicaid (proxy for poverty): 14% |
| Schore 199995  Schore 199796  Schore 201197  (Good) | To examine the HCFA case management demonstration projects' success in attracting clients, features and costs of case management, impact on client self-care and symptoms, and use of services | Project I: Diagnosis of congestive heart failure Project P: Diagnosis of congestive heart failure or chronic obstructive pulmonary disease Project H: Diagnosis of congestive heart failure, chronic obstructive pulmonary disease, ischemic heart disease, stroke, pneumonia and sepsis, major joint replacement, nutritional and metabolic problems (including diabetes, dehydration, and decubitus ulcers), or cancer | Project I: out of state beneficiaries, comorbid conditions that would make education-focused intervention impractical Project P: "reviewed charts with specially developed clinical criteria" (unspecified) Project H: patients living more than 25 miles from hospital, no primary physician on staff, and a prognosis of less than 6 months survival | Randomized trial | Mean age: 77 years (all projects) Sex: Over 50% female (all projects) Race/Ethnicity: Projects I and P >90% White, Project H ~75% White | Project I: Diagnosis of congestive heart failure Project P: Diagnosis of congestive heart failure or chronic obstructive pulmonary disease Project H: Diagnosis of congestive heart failure, chronic obstructive pulmonary disease, ischemic heart disease, stroke, pneumonia and sepsis, major joint replacement, nutritional and metabolic problems (including diabetes, dehydration, and decubitus ulcers), or cancer | Number of secondary diagnoses at last hospitalization before enrollment, intervention vs. control Project I: 3.8 vs. 3.9 Project P: 4.9 vs. 5.1 Project H: 3.1 vs. 3.2 |

| **Author,  Year (Quality)** | **Payer/ Insurance Carrier (e.g., Medicare, Medicaid, private)** | **Managed Care (Yes/No)** | **Characteristics of the Case Manager** | **Case Management Intervention** | **Pre-intervention Training** | **Primary Location of Case Manager** | **Primary Mode of Case Manager Contact with Patient** | **Caseload** | **Frequency of Visits and Phone Calls** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Boult 20118  Boult 200810  Boyd 201011  Wolff 20109  (Good) | 18% receiving Medicare, Kaiser, TRICARE/ US Family Health Plan | Yes, Kaiser of the Mid-Atlantic states, Johns Hopkins Community Physicians and MedStar Physician Partners | RNs who completed a course in guided care nursing. | Guided care nurse working in partnership with patients’ primary care physicians provided the following: comprehensive assessment, evidence-based care planning, monthly monitoring of symptoms and adherence, transitional care, coordination of health care professionals, support for self management, support for family caregivers, and enhanced access to community services. | Yes, completed course in guided care nursing. | Primary care clinic | Visits and phone | 50 to 60 patients | NR |
| Fitzgerald 199430  (Fair) | NR | NR | Nurse case managers | Protocol-driven, multifaceted intervention designed to 1) meet patients' medical, social support, and service needs; 2) improve access to care; 3) educate patients about their conditions and medications; 4) increase contacts with their care system; and 5) improve continuity and communication from the inpatient to the outpatient setting. | NR | General medicine clinic | Face-to-face at each scheduled general medicine clinic visit and over the telephone during regular monthly consultations. | NR | As needed, for consultation after ED visit, appointment followups, etc. |
| Latour 200651  Latour 2007156  (Fair) | National Health Care System, Netherlands | See previous cell | NR, refers to CM as trained nurse-specialist | Within 3–10 working days after hospital discharge CM, visited the patient at home to determine patient status, ADLs, and IADLs to determine a care plan. Tailored intervention to patient and may have included: referring patients to appropriate allied health and medical services, lifestyle recommendations, education in adherence and medication monitoring, telephone followup and CM made home visits at least every 2 months and more in necessary. | NR | Home, clinic and phone | See previous cell | NR | Homes visits: 72% of the initial visit lasted between 30-60 minutes. 52% of subsequent visits lasted 30–60 minutes (45.5% <30 minutes) Clinic: 79% 1-30 minutes in duration *Telephone:* 270 contacts (151 to patients, 119 to provider), Duration range: 5-10 minutes |
| Martin 200461  (Good) | Medicare | Medicare Choice Plus, HMO | Nurse care coordinator, no other details | A nurse care coordinator was responsible for outbound contact to those in complex case management communicating with treating physicians and staff, following up on hospitalizations and ED visits, and arranging for home health care and equipment through the PCP. Overall, program included creation of a CM electronic record, comprehensive, periodic health status assessments, telephonic CM, patient education materials and coordination with community services. | NR | Clinic, phone | NR | 50 to 70 patients per team | NR |
| Newcomer 200478  (Fair) | PacifiCare | Yes, PacifiCare | 6 NCMs, 2 per medical group monitored for quality through review and consultation with peers. | CM intervention included, health risk screening and a care plan, assessment, monitoring status of the patient and implementing care plan (including care plan goals), support for caregivers, treatment of adherence monitoring and careful attention of CM during times of transition (e.g., hospital to home). Initial assessment included a home visit if necessary. CM also determined if patients were of high, medium, or low risk. Depending on patient needs and risk, patients were given an active or monitoring status. | NR | Sharp Health Care Clinic | Telephone. Average contact hours with CM were 7.7 per year for each patient. | 250 patients with 60 actively managed at any one time. | If active status, patients contacted via phone at least monthly and more likely weekly. For monitoring status, patients were contacted every 60-90 days. |
| Peikes 2009 (a)82  Site: Carle - Integrated Delivery System  (Good) | Medicare | No (fee for service) (4/15) Yes, (not specified) | Care coordinator - Registered Nurse | Intervention goals collectively:  (1) improving adherence to treatment recommendations through patient education (2) improving communication and coordination, including identifying worsening symptoms before they required hospital care (3) improving physician practice  (4) increasing access to support.  Services programs educating patients to improve adherence to medication, diet, exercise and self-care regimens standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator. Focus on increasing physician adherence to evidence-based or guide-line based care | Three-week orientation; directed observation by supervisor | Integrated home delivery system, (multiple primary care and specialty clinics) | Telephone | 1:155 | Weekly to quarterly by telephone; in person as necessary |
| Peikes 2009 (b)82   Site: CorSolutions - Provider of disease Care/ Coordinated Care/ QI services  (Good) | Medicare | No | Care coordinator - Registered Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator  Focus on increasing physician adherence to evidence-based or guide-line based care | Three-week orientation | Commercial disease manage­ment company, care coordination service centers | Telephone | 1:145 | Every 2 weeks for first few months; monthly thereafter |
| Peikes 2009 (c)82   Site: Washington University - Academic Medical Center  (Good) | Medicare | No | Care coordinator - Registered Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator  Telemonitoring | Two-day orientation | Academic medical center | Telephone | 1:50 for local  1:100 for telephone | At least every 6 weeks |
| Peikes 2009 (d)82  Site: Avera - Community Hospital  (Good) | Medicare | No | Care coordinator - Registered Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator  Telemonitoring | Orientation by supervisor | Community hospital | Telephone | 1:88 | Weekly for first 6 months; twice monthly thereafter |
| Peikes 2009 (e)82   Site: CenVaNet - Provider of disease Care/ Coordinated Care/ QI services  (Good) | Medicare | No | Care coordinator - Registered Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator  Focus on increasing physician adherence to evidence-based or guide-line based care  Limited telemonitoring | Two-week orientation; directed observation by supervisor | Commercial disease manage­ment company, care coordination service centers | Telephone | 1:70 | At least monthly by telephone; at least every 6 months in person |
| Peikes 2009 (f)82  Site: Charlestown - Retirement Community  (Good) | Medicare | No | Care coordinator - Registered Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator | Orientation by supervisor; worked with experienced mentor | Retirement community | Telephone | 1:60 | Daily to monthly |
| Peikes 2009 (g)82  Site: Health Quality Partners - Provider of disease Care/ Coordinated Care/ QI services  (Good) | Medicare | No | Care coordinator - Registered Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator | Orientation; role playing; supervisor mentors | Commercial disease manage­ment company, care coordination service centers | Telephone | 1:90 | At least monthly |
| Peikes 2009 (h)82   Site: Medical Care Development - Community Hospital  (Good) | Medicare | No | Care coordinator - Registered Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator | Orientation; worked with experienced mentor | Community hospital | Telephone | 1:70 | Three or four times during first month; monthly thereafter |
| Peikes 2009 (i)82  Site: Mercy Medical Center - Community Hospital  (Good) | Medicare | No | Care coordinator - Registered Nurse with BSN | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator | Four-week orientation | Community hospital | Primary: In Person + Telephone | 1:50 | At least monthly |
| Peikes 2009 (j)82  Site: Qmed - Provider of disease Care/ Coordinated Care/ QI services  (Good) | Medicare | No | Care coordinator - Licensed Practical Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator | Orientation | Care coordination service centers | Telephone | 1:200 | Every other month |
| Peikes 2009 (k)82  Site: Georgetown - Academic Medical Center  (Good) | Medicare | No | Care coordinator - registered nurse with BSN | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator | Worked with experienced mentor for 6 to 8 months | Academic medical center | Telephone | 1:36 | At least monthly |
| Peikes 2009 (l)82   Site: Quality Oncology - Provider of disease Care/ Coordinated Care/ QI services  (Good) | Medicare | No | Care coordinator - Registered Nurse | Programs educating patients to improve adherence to medication, diet, exercise and self-care regimens  Standardized curricula and evaluation of educational effectiveness via monitoring clinical indicators, assessing patient knowledge and self-reported behavior, and having patients repeat/explain information back to coordinator | Two-week orientation; close oversight by supervisor for 6 months | Commercial disease manage­ment company, care coordination service centers | Telephone | 1:40 | Weekly to monthly |
| Schore 199995  Schore 199796  Schore 201197  (Good) | Medicare | No | Project I: Nurses Project P: Nurses Project H: One social worker and two nurses | Case management included assessment, service coordination, self-care education, and emotional support | NR | Project I: NR Project P: NR Project H: Hospital | Project I: Telephone Project P: Telephone Project H: In-person contact | Project I: 556 Project P: 376 Project H: 209 | NR |

| **Author,  Year (Quality)** | **Location of Face-to-face Time** | **Planning and Assessment** | **Patient Education** | **Self-Management Support** | **Coordination of Services** | **Medical Monitoring and Adjustment** | **Integrated within Primary Care** | **Health Information Technology** | **Comparator** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Boult 20118  Boult 200810  Boyd 201011  Wolff 20109  (Good) | NR | Yes | NR | NR | Yes | Yes, monitored medications but did not adjust. | Yes | No | Usual care group continued to receive care from their established primary care physicians. |
| Fitzgerald 199430  (Fair) | General medicine clinic | NR | Nurse case manger assigned to each intervention patient at hospital discharge. The nurse case manager's role included instructing patients about medical problems, facilitating access to usual care, and identifying and fulfilling unmet social medical needs with standard or alternative sources of care. The case managers counseled their assigned patients about their medical problems. This included discussing, in a standardized format, early warning symptoms and signs commonly associated with the patient's medical conditions, symptoms of possible adverse drug reactions, and appropriate prescribed therapies, such as diet and medication. | NR | Yes, CM scheduled appointments and tended to need for social support. | Medical monitoring but nurse case manager did not make adjustments; physician was consulted when adjustments were necessary. | Yes | NR | Usual care |
| Latour 200651  Latour 2007156  (Fair) | See previous cell, both home and clinic visits | Care plan considered the following interventions: family support (e.g., structuring, supportive interventions); mediation between patient and medical specialists or allied health professionals and referral; and improvement of compliance with medication, physical exercises, diet, smoking, and alcohol recommendations. | NR | Unclear though states, "self-management was promoted." | Yes, referring to allied health and other medical professionals. *Note: wrote letters to GP at the conclusion of intervention (unclear that they reported during the study though report 69 letters written to GP).* | Unclear though reported intervention could include adherence and monitoring of medication. No medical adjustments | Yes, CM gave provider results at the end of study. | NR | Usual care provided according to the recommendation of the medical specialist and the GP (did not include CM). |
| Martin 200461  (Good) | NR | Yes, included comprehensive, periodic health assessments. | Yes, provided patient education materials (no other details provided). | NR | Yes, coordinated with PCP and arranged home health care. | NR for monitoring. For adjustment no, but IT system did monitor use of certain medications known to be contraindicated for use in the elderly. When filling one of these prescriptions, generated an alert to prescribing physician asking to reconsider/ check order. | Yes | Intervention included "Master Console," an electronic health care management system that delivered info to case management staff. Alerted team to clinical status of patient and any changes that may require case management. | No specifics regarding usual care. |
| Newcomer 200478  (Fair) | During clinic visits, average=25 minutes per visit. | A care plan was developed to address needs and problems of the patients and set attainable goals. | Yes, CM provided education materials on chronic illnesses, advice and discussed high risk behaviors with patients. | Presumably yes, but NR. | Yes, as needed,  patients and family members give appropriate referrals (e.g., physical therapy), training in navigating the health plan and help with benefits/coverage, as well as community based programs and support groups. Also, CM coordinated with PCP through letters and phone calls when needed (See Notes). | Unclear, but stated this: CM . . . "had no direct role in chronic disease treatment management (such as periodic monitoring of weight gain or laboratory values)." No adjustment. | Yes, at the same clinic and CM communi­cated with PCP. | No | Usual care provided by PacifiCare but depended on hospital, ED, etc. |
| Peikes 2009 (a)82  Site: Carle - Integrated Delivery System  (Good) | No, primarily telephone | Comprehensive patient assessment: review of  medical and health service use history, current health, medications, health habits, functional status, and finances | Nurses educated patients to improve medication, diet, exercise, and self-care regimen adherence; materials part of electronic databases | Patient education based on behavioral change model | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Did monitor medications. Program coordinators called physicians to suggest medication adjustments. | Yes, program adminis­trators worked with physicians | Yes, Carle Care Management Information System | Control groups received “usual care,” that did not include care coordinators |
| Peikes 2009 (b)82   Site: CorSolutions - Provider of disease Care/ Coordinated Care/ QI services  (Good) | In person patient assessment | Same as above | Same as above | Same as above | No coordination of additional services | Same as above. | No | CorSolutions CorConnect | same as above |
| Peikes 2009 (c)82  Site: Washington University - Academic Medical Center  (Good) | In person patient assessment | Same as above | Same as above | Same as above | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, program adminis­trators worked with physicians | StatusOne CareLink case management software | same as above |
| Peikes 2009 (d)82  Site: Avera - Community Hospital  (Good) | In-person patient assessment | Same as above | Same as above | Same as above | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, some physicians employed by host; worked with staff. | Microsoft Access database | same as above |
| Peikes 2009 (e)82  Site: CenVaNet - Provider of disease Care/Coordinated Care/QI services  (Good) | In-person patient assessment | Same as above | Same as above | Same as above | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, physicians part of host network | InformaCare commercial disease management software | same as above |
| Peikes 2009 (f)82  Site: Charlestown - Retirement Community  (Good) | No, primarily telephone | Same as above | Same as above | Same as above | Assessed patients’ needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, program adminis­trators and care coordina­tors worked with physicians | Canopy commercial Web-based case management software | same as above |
| Peikes 2009 (g)82  Site: Health Quality Partners - Provider of disease Care/ Coordinated Care/ QI services  (Good) | No, primarily telephone, in person at home assessment for high risk patients only | Same as above | Same as above | Same as above | Assessed patients’ needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, program adminis­trators worked with physicians | Microsoft Access database | same as above |
| Peikes 2009 (h)82  Site: Medical Care Development - Community Hospital  (Good) | In-person patient assessment | Same as above | Same as above | Same as above | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, physicians employed by hospitals participat­ing in the program | Clinical Management Systems commercial disease management software | Same as above |
| Peikes 2009 (i)82  Site: Mercy Medical Center - Community Hospital  (Good) | In-person patient assessment | Same as above | Same as above | Same as above | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, program staff worked with physicians | Mercy Case Management Information System | same as above |
| Peikes 2009 (j)82  Site: Qmed - Provider of disease Care/ Coordinated Care/ QI services  (Good) | No, primarily telephone | Same as above | Same as above | Same as above | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, "many" program staff worked with physicians | QMeds OHMS, PIMS, and PAT | same as above |
| Peikes 2009 (k)82  Site: Georgetown - Academic Medical Center  (Good) | In-person patient assessment | Same as above | Same as above | Same as above | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Some physicians employed by host | Canopy commercial Web-based case management software | same as above |
| Peikes 2009 (l)82  Site: Quality Oncology - Provider of disease Care/ Coordinated Care/ QI services  (Good) | No, primarily telephone | Same as above | Same as above | Same as above | Assessed patients needs for non-Medicare support services or additional Medicare-covered services (home care; transportation; certain equipment and supplies; and disease-specific, diet, or smoking-cessation support groups) | Same as above. | Yes, "many" program staff worked with physicians | Quality Oncology Integrated Care Management System | same as above |
| Schore 199995  Schore 199796  Schore 201197  (Good) | NR | NR | Project I: Client goals regarding CHF education Project P: Support services, cardiac rehabilitation and therapy, Medicare-covered services Project H: Support services, medical services, and education | Project I: Focused CHF education at each contact, educational pamphlet mailed after random assignment, quarterly newsletters Project P: Education at each contact Project H: Education as noted in case management plans | Project I: Referral to social worker for support services Project P: Arranged for services not provided by physician  Project H: Arranged and coordinated support services | NR | Project I: No Project P: No Project H: Yes | No | Project I: Caregiver support Project P: Caregiver support Project H: Client advocacy and caregiver support |

| **Author,  Year (Quality)** | **Results by Patient Health Outcomes** | **Results by Resource Utilization Outcomes** | **Results by Process Measure Outcomes** | **Harms Reported** | **Number Screened/ Eligible/ Enrolled** | **Number Withdrawn/ Lost to Followup/ Analyzed (Overall)** | **Total Withdrawals;  Withdrawals due to Adverse Events** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Boult 20118  Boult 200810  Boyd 201011  Wolff 20109  (Good) | NR | Adjusted GC:UC Ratio of Service Use (95% CI) in all study groups; patients at very high risk (hierarchical condition category > 1.6); Kaiser patients Hospital Admissions: 1.01 (0.83-1.23); 1.00 (0.78-1.28); 0.85 (0.61-1.19) 30-day Readmission: 0.79 (0.53-1.16); 0.81 (0.53-1.26); 0.51 (0.23-1.15) Hospital days: 1.00 (0.77-1.30); 0.88 (0.64-1.22); 0.79 (0.53-1.19) SNF admissions: 0.92 (0.60-1.40); 0.90 (0.52-1.54); **0.53 (0.31-0.89)** SNF days: 0.84 (0.48-1.47); 0.83 (0.39-1.76); **0.48 (0.28-0.84)** ED visits: 1.04 (0.81-1.34); 1.18 (0.84-1.66); 0.83 (0.56-1.21) Primary care visits: 1.02 (0.91-1.14); 0.98 (0.84-1.14); 1.08 (0.90-1.29) Special visits: 1.07 (0.93-1.23); 1.09 (0.91-1.30); 0.93 (0.75-1.15) HHC episodes: **0.70 (0.53-0.93)**; 0.84 (0.60-1.23); 1.09 (0.69-1.74) | NR | NR | 13534/2391/904 | 54/0/850 | 54/NR |  |
| Fitzgerald 199430  (Fair) | Mortality intervention vs. comparator 10.5% vs. 10.4%, p=0.90  Intervention vs. comparator visits to primary care physicians in the GMC:  0.30 vs. 0.26 visits per patient per month, p=0.02.  Service need being provided, number per patient:  2.42±1.74 vs. 2.30±1.70, p=56. | Intervention vs. comparator Hospital readmissions number of readmissions patient/month 0.099±.15 vs. 0.102±.13, p=0.79 number of hospital days, patient/month 0.767±1.27 vs. 0.869±1.42, p=0.33 Nursing homes number of admissions per patient per month 0.006±.032 vs. 0.005±.031, p=0.67 number of days, patient/month 0.64±3.42 vs. 0.22±1.27, p=0.04 | NR | NR | 4076/1068/668 | 66/13/656 | 10% withdrawals |  |
| Latour 200651  Latour, 2007156  (Fair) | After adjustment, QOL and HADS showed NS though unadjusted, the median difference sections of QOL of quality of life and HADS favored the control group. | ED readmissions (control vs. intervention):  11 (15.9%) vs.16 (20.6%); (Crude RR: 1.30; 95% CI 0.64 to 2.58)   Care utilization: Mean difference of CM-control (95% CI): Primary Care Practice visits: 1.39 (0.94; 2.68 ), p=0.05 Telephone: -0.56 (-2.17; 1.05) Home visits: 1.13 (-0.42; 2.68)  NS for supportive care (e.g. nursing visits) or admissions to rehab clinic, nursing home or residential home. | NA | NR | NR/1,291/208 | 61/6/147 | 61/NR (presumably 0) | Included INTERMED approach to intervention (see link below for details): http://www.intermedfoundation.org/homepage |
| Martin 200461  (Good) | Intervention vs. Control 1) Number of deaths: 191 vs. 21; p=0.18 Change in Intervention vs. Control 2) SF-36 Health Domains a) General: -1.5 vs. -2.3; p=0.09 b) Mental: -.013 vs. 0.01; p=0.74 c) Physical fracture: -4.3 vs. 4.0; p=0.67 d) Social: -1.4 vs. -2.8; p=0.04 3) Change in satisfaction with health care plan: 0.32 vs. 0.12; p<0.01 | Intervention vs. Control 1) Inpatient admissions (1000/patient/year): 430 vs. 421; p=0.89 2) Inpatient bed-days (1000/patient/year): 1929 vs. 1989; p=0.46 3) SNF admissions (1000/patient/year): 36 vs. 37; p=0.73 4) SNF bed-days: 616 vs. 748; p=0.025) Mean cost/member: 6828 vs. 7001; p=0.61 |  | NR | 13,304/NR/8504 | 1467/0/6158 | 1467/0 | Case management component of intervention was part of a larger disease management program, Senior Life Management. Did not report results of case management subgroup. |
| Newcomer 200478  (Fair) | Mean values at baseline; 12 months SF-12 Mental: CM: 52.4; 51.9 Control: 52.4; 52.3 SF-12 Functional: CM: 38.9; 38.7 Control: 38.3; 38.4 | Mean values at baseline; 12 months Monthly days in hospital:  CM: .9; 1.0 vs. Control: 1.2; 1.3 % 1 or more nursing home admission CM: 7.9; 6.8 vs. Control: 11.9: 12.6 | NR | None | 5859/NR/3079 | NR/3079 | NR/0 | Also includes data of reasons for the likelihood of service use but this does but overall (not comparing CM vs. control). CM monitored physician use and clinic appointments and contacted those who repeatedly missed appointments (or if PCP requested contact). CM intervened by calling to remind members, facilitate transportation, or coordinated with caregivers to also attend patient visits. |
| Peikes 2009 (a)82   Site: Carle - Integrated Delivery System  (Good) | Mortality Treatment-Control Difference (%)   (non sign. p-values, except as noted)  -0.6 | Adjusted Annualized Hospital admissions: CM-control difference, (90%CI); % difference 0.022 (−0.026 to 0.070) 4.2, p=0.45 Adjusted Medicare expenditures: ($)  Total CM-control difference, (90%CI); % difference 209 (153 to 265) 30.1 p<0.001 | (Treatment % vs. Control %; difference) Being taught to follow a healthy diet: 71.5 vs. 45.6; 24.9  Colon cancer screening:  42.9 vs. 42.1; .08 Mammography: 74.8 vs. 71.2; 3.6 Eye examination: 86.5 vs. 83.3; 3.2 Hemoglobin A1C testing:  94.9 vs. 94.7; .02 Urine microalbuminuria testing: 81.0 vs. 60.2; 20.8 | Pt. self report of adverse medical events collected, but specific harms related to Case management, NR | Entire Study Total: 18 309 patients (n=178 to 2657 per program)  Individual sites: Enrolled After 12 and 24 Months: 2,283 2,642 | Analyzed (Overall) Treatment (n = 9427) Control (n = 8975)  Treatment only:  10% | NR |  |
| Peikes 2009 (b)82   Site: CorSolutions - Provider of disease Care/ Coordinated Care/ QI services  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference −0.057 (−0.174 to 0.059) −3.2; p=0.42  Adjusted Medicare expenditures:($) Total Treatment-control difference, (90%CI); % difference 213 (25 to 400) 8.2; p=0.06 | Being taught to follow a healthy diet: 75.1 vs. 64.8; 10.3  Colon cancer screening:  36.4 vs. 41.3; -4.9  Mammography: 32.6 vs. 34.1; -1.5  Eye examination: 75.8 vs. 73.2; 2.6  Hemoglobin A1C testing:  82.7 vs. 77.9; 4.8  Urine microalbuminuria testing: 25.5 vs. 22.7; 3.1 | same as above | Enrolled After 12 and 24 Months: 671 2,162 | 43% | -0.1 |  |
| Peikes 2009 (c)82   Site: Washington University - Academic Medical Center  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference   Adjusted Medicare expenditures:($) Total Treatment-control difference, (90%CI); % difference 245 (96 to 395) 12.9 p=0.007 | Being taught to follow a healthy diet: 59.9 vs. 53.7; 6.2  Colon cancer screening:  49.3 vs. 47.0; 2.4  Mammography: 56.4 vs. 57.3; -0.9  Eye examination: 85.2 vs.87.3; -2.1  Hemoglobin A1C testing:  86.1 vs. 86.0; .01  Urine microalbuminuria testing: 27.9 vs. 31.4; -3.5 | same as above | Enrolled After 12 and 24 Months: 1,425 2,038 | 15% | -0.7 |  |
| Peikes 2009 (d)82   Site: Avera - Community Hospital  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference −0.025 (−0.199 to 0.150) −1.8 p=0.82    Adjusted Medicare expenditures:($) Total Treatment-control difference, (90%CI); % difference 236 (65 to 408) 17.0 p=0.02 | Being taught to follow a healthy diet: 70.5 vs. 55.6; 14.9  Colon cancer screening:  36.9 vs. 37.2; -0.3  Mammography: 44.3 vs. 43.7; .06  Eye examination: 87.4 vs. 85.6; 1.2  Hemoglobin A1C testing:  82.0 vs. 80.8; 1.2  Urine micro-albuminuria testing: 19.8 vs. 27.8; -8.0 | same as above | Enrolled After 12 and 24 Months: 318 624 | 28% | -0.5 |  |
| Peikes 2009 (e)82  Site: CenVaNet - Provider of disease Care/ Coordinated Care/QI services  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference 0.039 (−0.038 to 0.116) 5.9 p=0.41  Adjusted Medicare expenditures:($) Total Treatment-control difference, (90%CI); % difference 111 (22 to 200) 13.0 p=0.04 | Being taught to follow a healthy diet: 75.5 vs. 41.2; 33.4  Colon cancer screening:  41.8 vs. 41.5; 0.3  Mammography: 46.4 vs. 47.5; -1.1  Eye examination: 90.4 vs. 89.0; 1.4  Hemoglobin A1C testing:  88.1 vs. 88.3;- .02  Urine microalbuminuria testing: 833.4 vs. 27.1; 6.3 | same as above | Enrolled After 12 and 24 Months: 1,074 1,305 | 16% | 1.7 |  |
| Peikes 2009 (f)82   Site: Charlestown - Retirement Community  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference 0.118 (0.025 to 0.210) 19.0 p=0.04   Adjusted Medicare expenditures: ($) Total Treatment-control difference, (90%CI); % difference 405 (267 to 542) 40.6 p<0.001 | Being taught to follow a healthy diet: 46.3 vs. 24.4; 21.8  Colon cancer screening:  45.4 vs. 42.8; -.05  Mammography: 62.0 vs. 49.6; 12.4  Eye examination: 96.5 vs. 89.4; 7.1  Hemoglobin A1C testing:  81.9 vs. 78.7; 3.2  Urine microalbuminuria testing: 9.9 vs. 3.4; 6.5 | same as above | Enrolled After 12 and 24 Months: 430 802 | 11% | -0.4 |  |
| Peikes 2009 (g)82   Site: Health Quality Partners - Provider of disease Care/ Coordinated Care/ QI services  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference  −0.049 (−0.111 to 0.012) −11.4 p=0.19  Adjusted Medicare expenditures:($) Total Treatment-control difference, (90%CI); % difference 19 (−68 to 107) 2.8 p=0.72 | Being taught to follow a healthy diet:  84.5 vs. 32.8; 52.0   Colon cancer screening:  42.8 vs. 36.6; 6.2  Mammography:  77.1 vs. 72.22; 4.9  Eye examination:  87.8 vs. 92.0; -4.2  Hemoglobin A1C testing:  97.5vs. 92.8; 4.7  Urine microalbuminuria testing: 95.6 vs. 93.0; 2.6 | same as above | Enrolled After 12 and 24 Months: 498 1,140 | 2.50% | -2.3\* | \*Difference between the treatment and control groups significantly different from 0 at the 0.10 level, 2-tailed test. |
| Peikes 2009 (h)82   Site: Medical Care Development - Community Hospital  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference −0.050 (−0.207 to 0.107) −3.4 p=0.60   Adjusted Medicare expenditures:($) Treatment-control difference, (90%CI); % difference  28 (−153 to 209) 1.7  p=0.80 | Being taught to follow a healthy diet:  85.3 vs. 71.0; 12.5   Colon cancer screening:  48.8 vs. 49.6; .08  Mammography:  50.4 vs. 48.5; 1.9  Eye examination:  86.5 vs. 83.3; 3.2  Hemoglobin A1C testing:  86.6vs. 89.9; 1.4  Urine microalbuminuria testing: 38.2 vs. 37.8; 0.4 | same as above | Enrolled After 12 and 24 Months: 393 876 | 38% | 1 |  |
| Peikes 2009 (i)82  Site: Mercy Medical Center - Community Hospital  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference −0.168 (−0.283 to −0.054) −17.1 p=0.02   Adjusted Medicare expenditures:($) Treatment-control difference, (90%CI); % difference 134 (15 to 252) 11.1 p=0.07 | Being taught to follow a healthy diet:  66.4 vs. 45.5; 20.9   Colon cancer screening:  35.2 vs. 36.7; -1.5  Mammography:  47.9vs. 44.7; -1.9  Eye examination: 97.8 vs. 97.0; 0.8  Hemoglobin A1C testing:  87.7 vs. 86.1; 1.6  Urine microalbuminuria testing: 38.2 vs. 37.8; 0.4 | same as above | Enrolled After 12 and 24 Months: 627 865 | 13% | -0.9 |  |
| Peikes 2009 (j)82   Site: Qmed - Provider of disease Care/ Coordinated Care/ QI services  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference 0.006 (−0.047 to 0.059) 1.4 p=0.86   Adjusted Medicare expenditures:($) Total Treatment-control difference, (90%CI); % difference | Being taught to follow a healthy diet: 44.3 vs. 29.9; 13.5   Colon cancer screening:  43.8 vs. 43.8; -0.1 [sic]  Mammography: 66.6 vs. 68.5; -1.9  Eye examination: 88.4 vs. 86.8;1.6  Hemoglobin A1C testing:  90.5 vs. 90.1; .04  Urine microalbuminuria testing: 47.5 vs. 49.5; -2.0 | same as above | Enrolled After 12 and 24 Months: 1,404 1,454 | 12.50% | 0.3 |  |
| Peikes 2009 (k)82   Site: Georgetown - Academic Medical Center  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference  −0.494 (−0.919 to −0.069) −24.0 p=0.07  Adjusted Medicare expenditures:($) Total Treatment-control difference, (90%CI); % difference | Being taught to follow a healthy diet: NA  Colon cancer screening:  NA  Mammography: 37.2 vs. 20.8; 16.4  Eye examination: 81.7 vs. 79.2; 2.5  Hemoglobin A1C testing:  78.8 vs. 77.5; 1.3  Urine microalbuminuria testing: 31.1 vs. 19.8; 11.3 | same as above | Enrolled After 12 and 24 Months: 108 199 | 26% | -1.4 |  |
| Peikes 2009 (l)82   Site: Quality Oncology - Provider of disease Care/ Coordinated Care/ QI services  (Good) | NR | Adjusted Annualized Hospital admissions: Treatment-control difference, (90%CI); % difference 0.049 (−0.366 to 0.463) 4.4 p=0.85  Adjusted Medicare expenditures:($) Total Treatment-control difference, (90%CI); % difference 67 (−26 to 160) 9.0 p=0.24 | NR | same as above | Enrolled After 12 and 24 Months:  63 141 | 45% | -0.8 |  |
| Schore 199995  Schore 199796  Schore 201197  (Good) | Mortality\* Project I: 19% at one year, 27% at two years Project P: 26% at one year Project H: 14% at one year  \*No comparison between interventions and controls | Estimated impact of project on any inpatient hospital admissions Project I: 2.2 (p=0.46) Project P: -1.5 (p=0.71) Project H: 10.0 (p=0.06)  Estimated impact of project on number of inpatient hospital admissions Project I: 0.03 (p=0.71) Project P: 0.03 (p=0.83) Project H: 0.31 (p=0.06)  Estimated impact of project on ED visits Project I: -0.01 (p=0.90) Project P: -0.02 (p=0.88) Project H: 0.85 (p=0.01) | NR | NR | Project I: NR/8,002/1,134 Project P: 3,628/2,537/806 Project H: 4,135/1,674/442 | Voluntary disenrollment Project I: 17% Project P: 2% Project H: 8% | NR |  |

Abbreviations: CAD=coronary artery disease, CHF=congestive heart failure, CI=confidence interval, COPD=chronic obstructive pulmonary disorder, HD=health department, HMO=health maintenance organization, MCCD=Medicare Care Coordination Demonstration, MMSE=Mini-Mental State Examination, NCM=nurse care manager, NR=not reported, PAC=post-acute care, QOL=quality of life, RN=registered nurse.