

AACP REPORTS

Report of the 2009-2010 Professional Affairs Committee: Pharmacist Integration in Primary Care and the Role of Academic Pharmacy

APPENDIX B

To access the full compendium of responses to the 2010 *Call for Successful Practices: College/School Involvement with Pharmacists Integration in Primary Care Practice* please visit, <http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx>

Year	Report	Brief Description of Report	Academic Pharmacy Connection	Outcomes Studied
Ambulatory Care/Clinic Models				
2009	Choe HM, Bernstein SJ, Mueller BA, Walker PC, Stevenson JG, Standiford CJ. Pharmacist leads primary care team to improve diabetes care. <i>Am J Health Syst Pharm.</i> 2009;66:622-4.	Randomized study conducted in a general medicine clinic that included 80 patients with diabetes in collaboration with PCPs (internal medicine)	Faculty as investigator; faculty as service provider; residency training site	Clinical
2009	Ferris State University, Cognitive Disorders Clinic. <i>Call for Successful Practices.</i> Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a cognitive disorder clinic that serves 150 patients/year in collaboration with a neurologist, neuropsychologist, care coordinator, and social worker	Faculty as investigator; faculty as service provider	Clinical; humanistic
2009	Ferris State University, Internal Medicine Clinic. <i>Call for Successful Practices.</i> Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in an internal medicine clinic that provides MTM for patients in collaboration with PCPs (internal medicine/pediatrics), nurses (RN, LPN), a social worker, diabetic educator and referral coordinator	Faculty as service provider; experiential education site	Clinical; humanistic
2009	Hogg W, Lemelin J, Dahrouge S, Liddy C, et al. Randomized controlled trial of anticipatory and preventive multidisciplinary team care for complex patients in a community-based primary care setting. <i>Can Fam Physician</i> 2009;55:e76-85.	Outcomes evaluation conducted in a community practice that included 240 patients with 4 disease states and collaboration of a multidisciplinary team	Academic connection to nursing school and medical school	Clinical; humanistic
2009	Last JP, Kozakiewicz JM. Development of a pharmacist-managed latent tuberculosis clinic. <i>Am J Health Syst Pharm.</i> 2009;66:1522-3.	Descriptive study conducted in a hospital-affiliated ambulatory care clinic that included 80 patients with tuberculosis and collaboration of PCPs, pulmonologists and infectious disease specialty physicians	Residency training site	Clinical
2009	Palm Beach Atlantic University. <i>Call for Successful Practices.</i> Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in an ambulatory care clinic that serves patients at its 4 sites in collaboration with a full interdisciplinary, interprofessional health care team	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic

2009	Pottie K, Haydt S, Farrell B, Kennie N, et al. Pharmacist's identity development within multidisciplinary primary health care teams in Ontario; qualitative results from the IMPACT project. <i>Res Social Adm Pharm.</i> 2009;5:319-26.	Description of pharmacist integration into 7 different family practices, where the pharmacists wrote narrative reports describing their experiences and commented on their identity, influence, value and professionalism	Academic connection to medical school	Humanistic
2009	Touro University. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a university-based clinic that serves patients at its 2 sites in collaboration with physicians (family, internal medicine, pediatrics) and nurse (NP)	Faculty as service provider; experiential education site	Clinical; humanistic
2009	The University of Arizona. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a community health center that, since its inception, has served the needs of 2,000 patients, providing MTM for patients at 3 sites in collaboration with internist/family physicians	Residency training site; experiential education site	Clinical; humanistic
2009	University of Arkansas for Medical Sciences, AHEC. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in a community health center that serves 12,000 patients with multiple chronic care needs at its 2 sites in collaboration with a full interdisciplinary, interprofessional health care team	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	University of Arkansas for Medical Sciences, Women's Clinic. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in a university-based clinic that serves patients with diabetes in collaboration with physicians (Ob/GYN), a nurse (NP), dietician, social worker, lactation specialist, and radiology technician	Faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	University of Charleston. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a substance abuse and chemical dependency free clinic treating 15-30 addiction and psychiatric disorder patients a in collaboration with primary care doctors	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	University of Colorado Denver. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a university-based clinic that serves patients in collaboration with a large, diverse interdisciplinary, interprofessional health care team	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	The University of Georgia. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in an ambulatory care clinic that serves patients with multiple chronic care needs at its multiple sites in collaboration with physicians, nurses and residents	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	University of Minnesota, Duluth. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in an ambulatory care clinic that serves patients in collaboration with a PCP (family physician, internal medicine), PA, and nurse (NP)	Faculty as service provider; experiential education site	Clinical; humanistic
2009	University of Minnesota, Minneapolis. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in an ambulatory care clinic that serves 600 patients/week with multiple chronic care needs in collaboration with a PCP (family physician), nurse (RN, NP), social worker and psychiatrist	Faculty as service provider; residency training site; experiential education site	Clinical; humanistic

2009	University of North Carolina at Chapel Hill. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a university-based clinic that serves 14,600 patients with multiple chronic care needs in collaboration with 23 attending physicians, 70 resident physicians, 3 clinical faculty pharmacists, an ambulatory care pharmacy resident, 2 PAs, a NP, 13 nurses, 5 care assistants, a social worker and a nutritionist	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	The University of Oklahoma. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a university-based clinic that serves 500 patients/month in collaboration with a family physician and dietician	Faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	University of Southern California, International Travel Clinic. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a university-based clinic that serves 342 patients/year, as the patients prepare for international travel, in collaboration with physicians	Faculty as service provider; experiential education site	Clinical; humanistic
2009	University of Southern California, Rheumatology Clinic. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in an ambulatory care clinic that serves 50 patients/day with depression in collaboration with a rheumatologist	Faculty as service provider; experiential education site	Clinical; humanistic
2009	University of Southern California, Senior Health Clinic. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in a university-based clinic that serves patients with geriatric care needs in collaboration with 5 geriatricians, a fellow in geriatric medicine, a geriatrics PA, 2 neuropsychologists, 2 geriatrics clinical pharmacists, a geriatrics social worker, a neurologist, a rheumatologist and a rehabilitation specialist	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	The University of Tennessee, Pharmacy and Medical Schools Clinic. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a university-based clinic that serves patients with multiple chronic care needs in collaboration with a medical director, 5 attending physicians, 27 internal medicine residents, 3 faculty pharmacists, a nursing director, and 2 nurses	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	The University of Tennessee, Pharmacy Clinic. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a university-based clinic that serves patients with diabetes and other chronic conditions in collaboration with physicians (family, internal medicine)	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	University of Toronto, Antimicrobial. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in a university-based clinic that serves patients in collaboration with physicians (family, internal medicine), nurses (NP) and blood technicians	Faculty as investigator; faculty as service provider	Clinical; humanistic
2009	University of Toronto, Geriatric. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in an ambulatory care clinic that serves patients in collaboration with a physician, nurses and a psychogeriatrician	Faculty as investigator; faculty as service provider	Clinical; humanistic
2009	University of Toronto, Hamilton. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model at a community health center that serves 30,000 patients/year at its 2 sites in collaboration with a full interdisciplinary, interprofessional health care team	Faculty as service provider; residency training site; experiential education site	Clinical; humanistic

2009	University of Toronto, Taddle Creek. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in a community health center that serves patients in collaboration with a full interdisciplinary, interprofessional health care team	Residency training site; experiential education site	Clinical; humanistic
2009	University of Toronto, University Health Network. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in a community health center that serves 12,000 patients in collaboration with a full interdisciplinary, interprofessional health care team	Faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	University of Washington. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in a university-based clinic that serves patients with multiple chronic care needs at 7 sites in collaboration with physicians (family, internal medicine), nurses (NP) and medical residents	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2009	Vazquez SR, Campbell J, Hamann G, George C, Sprabery L. Anticoagulation clinic workflow analysis. <i>J Am Pharm Assoc</i> . 2009;49:78-85.	Process assessment conducted in a hospital outpatient clinic that included 250 patients on anticoagulation therapy and collaboration with physicians, medical assistants, and lab staff	Faculty as investigator; residency training site; experiential education site	Economic
2009	Wayne State University. <i>Call for Successful Practices</i> . Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model in an ambulatory care clinic that serves patients with diabetes at 3 sites in collaboration with 12 physicians, 8 medical assistants, and 2 pharmacists	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2008	Altavela JL, Jones MK, Ritter M. A prospective trial of a clinical pharmacy intervention in a primary care practice in a capitated payment system. <i>J Manag Care Pharm</i> . 2008;14:831-43.	Quasi-experimental study conducted in an internal medicine practice that included 343 patients and pharmacist provision of medication recommendations to physicians	Cannot determine or not reported	Clinical; economic
2008	Anaya JP, Rivera JO, Lawson K, Garcia J, Luna J Jr, Ortiz M. Evaluation of pharmacist-managed diabetes mellitus under a collaborative drug therapy agreement. <i>Am J Health Syst Pharm</i> . 2008;65:1841-5.	*Quasi-experimental study conducted in a hospital-affiliated ambulatory care clinic that included 110 patients with diabetes and PCP collaboration	Faculty as investigator; faculty as service provider	Clinical; economic
2008	Carver M, Carder J, Hartwell L, Arjomand M. Management of mineral and bone disorders in patients on dialysis: a team approach to improving outcomes. <i>Nephrol Nurs J</i> . 2008;35:265-70.	Description of a team approach in a dialysis center that included patients with chronic kidney disease and mineral and bone disorders and collaboration of an interdisciplinary, interprofessional health care team	Cannot determine or not reported	Clinical
2008	Divine H, Nicholas A, Johnson CL, Perrier DG, Steinke DT, Blumenschein K. PharmacistCARE: description of a pharmacist care service and lessons learned along the way. <i>J Am Pharm Assoc</i> . 2008;48:793-802.	Description of a pharmacist practice model conducted in an ambulatory care clinic that included 322 total patients with diabetes and other cardiovascular diseases	Faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2008	Irons BK, Seifert CF, Horton NA. Quality of care of a pharmacist-managed diabetes service compared to usual care in an indigent clinic. <i>Diabetes Technol Ther</i> . 2008;10:220-6.	*Quasi-experimental study conducted in a community health center that included 92 patients with diabetes	Faculty as investigator; faculty who directs services; faculty as service provider	Clinical

2008	Isetts BJ, Schondelmeyer SW, Artz MB, Lenarz LA, Heaton AH, Wadd WB, Brown LM, Cipolle RJ. Clinical and economic outcomes of medication therapy management services: the Minnesota experience. <i>J Am Pharm Assoc.</i> 2008;48:203-11.	Quasi-experimental study that included 285 patients receiving MTM services in 6 clinics in collaboration with an interprofessional team	Faculty as investigator	Clinical; economic
2008	Johnson CL, Nicholas A, Divine H, Perrier DG, Blumenschein K, Steinke DT. Outcomes from DiabetesCARE: a pharmacist-provided diabetes management service. <i>J Am Pharm Assoc.</i> 2008;48:722-30.	Non-experimental observational study conducted at a university-based clinic that included 101 self-insured patients with diabetes and risk for CVD	Faculty as investigator; faculty who directs services; faculty as service provider	Clinical; humanistic
2008	Leal S, Soto M. Chronic kidney disease risk reduction in a Hispanic population through pharmacist-based disease-state management. <i>Adv Chronic Kidney Dis.</i> 2008;15:162-7.	*Description of a community health center ambulatory care clinic that included 601 Hispanic patients with diabetes that were referred for pharmacist care in collaboration with PCPs	Faculty as investigator; faculty as service provider	Clinical
2008	Mehos BM, Saseen JJ, MacLaughlin EJ. Effect of pharmacist intervention and initiation of home blood pressure monitoring in patients with uncontrolled hypertension. <i>Pharmacotherapy.</i> 2000; 20:1384-1389.	Randomized controlled study conducted in a university-affiliated ambulatory care clinic that included 36 patients with uncontrolled hypertension and physician collaboration	Faculty as investigator; faculty as service provider	Clinical, humanistic
2007	Brooks AD, Rihani RS, Derus CL. Pharmacist membership in a medical group's diabetes health management program. <i>Am J Health Syst Pharm.</i> 2007;64:617-21.	Outcome evaluation in an ambulatory care clinic that included 707 patients with diabetes in 12 sites and collaboration with a physician, nurses, and dietician	Faculty as investigator; faculty as service provider; experiential education site	Clinical
2007	Chisholm MA, Spivey CA, Mulloy LL. Effects of a medication assistance program with medication therapy management on the health of renal transplant recipients. <i>Am J Health Syst Pharm.</i> 2007;64:1506-1512.	Outcome evaluation conducted in a university-based hospital that included 36 renal transplant patients and physician collaboration	Faculty as investigator; faculty as service provider	Clinical; humanistic
2007	Horberg MA, Hurley LB, Silverberg MJ, et al. Effect of clinical pharmacists on utilization of and clinical response to antiretroviral therapy. <i>J Acquir Immune Defic Syndr.</i> 2007;44:531-539.	Observational study of 1,571 HIV-infected patients in primary care clinics with and without a clinical pharmacist and other health professionals	Faculty as investigator	Clinical; economic
2007	Joy MS, Candiani C, Vaillancourt BA, Chin H, Hogan SL, Falk RJ. Reengineering clinical operations in a medical practice to optimize the management of anemia of chronic kidney disease. <i>Pharmacotherapy.</i> 2007;27(5):734-44.	Description of a clinical pharmacy service focused on anemia management, conducted in a university-affiliated ambulatory care clinic, that included 128 patients with chronic kidney disease and collaboration of nephrologists and PCPs	Faculty as investigator; faculty as service provider	Clinical
2007	Lloyd KB, Thrower MR, Walters NB, et al. Implementation of a weight management pharmaceutical care service. <i>Ann Pharmacotherapy.</i> 2007;41(2):185-192.	Outcome evaluation conducted in a campus-based pharmaceutical care clinic that included 289 patients enrolled in a weight management program	Faculty as investigator	Clinical
2007	Loughlin SM, Mortazavi A, Garey KW, Rice GK, Birtcher KK. Pharmacist-managed vaccination program increased influenza vaccination rates in cardiovascular patients enrolled in a secondary prevention lipid clinic. <i>Pharmacotherapy.</i> 2007;27(5):729-33.	Outcome evaluation conducted in an ambulatory care clinic that included 742 secondary prevention patients and physician collaboration	Faculty as investigator; residency training site; experiential education site	Clinical
2007	March K, Mak M, Louie SG. Effects of pharmacists' interventions on patient outcomes in an HIV primary care clinic. <i>Am J Health Syst Pharm.</i> 2007;64(24):2574-8.	Description of a clinical practice in a community health clinic that provides care to 34 patients with HIV who are referred for pharmacist care in collaboration with PCPs	Faculty as investigator; residency training site; experiential education site	Clinical; humanistic

2007	Murray MD, Young J, Hoke S, et al. Pharmacist intervention to improve medication adherence in heart failure: a randomized trial. <i>Ann Intern Med.</i> 2007;146(10):714-725.	Randomized controlled evaluation conducted in 314 patients with heart failure in a pharmacist- or other provider-managed group	Faculty as investigator	Clinical; economic
2007	Stroup JS, Rivers SM, Abu-Baker AM, Kane MP. Two-year changes in bone mineral density and T scores in patients treated at a pharmacist-run teriparatide clinic. <i>Pharmacotherapy.</i> 2007;27(6):779-788.	Description of a pharmacist-managed teriparatide clinic in a private endocrinology office that included 60 patients with osteoporosis and collaboration of an endocrinologist	Faculty as investigator; faculty as service provider	Clinical
2006	Chisholm MA, Mulloy LL, Jagadeesan M, DiPiro JT. Impact of clinical pharmacy services on renal transplant patients' compliance with immunosuppressive medications. <i>Clin Transplant.</i> 2006;15(5):330-336.	Randomized study conducted at a university hospital that included 24 renal transplant patients and collaboration of a multidisciplinary team	Faculty as investigator; faculty as service provider	Clinical
2006	Isetts BJ, Schondelmeyer SW, Heaton AH, Wadd WB, Hardie NA, Artz MB. Effects of collaborative drug therapy management on patients' perceptions of care and health-related quality of life. <i>Res Social Adm Pharm.</i> 2006;2:129-42.	*Randomized trial conducted at a 6 primary care clinics that included 570 patients and physician collaboration	Faculty as investigator; faculty as service provider	Humanistic
2006	Morello CM, Zadovny EB, Cording MA, Suemoto RT, Skog J, Harari A. Development and clinical outcomes of pharmacist-managed diabetes care clinics. <i>Am J Health Syst Pharm.</i> 2006;63:1325-31.	Outcome evaluation in an ambulatory care clinic that included 113 patients with diabetes at 2 sites and physician collaboration	Faculty as investigator	Clinical
2006	Scott DM, Boyd ST, Stephan M, Augustine SC, Reardon TP. Outcomes of pharmacist-managed diabetes care services in a community health center. <i>Am J Health Syst Pharm.</i> 2006;63:2116-22.	Randomized trial conducted at a community health center that included 150 patients with hypertension, diabetes, lipids and collaboration of a multidisciplinary team	Faculty as investigator; faculty as service provider	Clinical; humanistic
2006	Smith SR, Catellier DJ, Conlisk EA, Upchurch GA. Effect on health outcomes of a community-based medication therapy management program for seniors with limited incomes. <i>Am J Health Syst Pharm.</i> 2006;63:372-379.	Outcome evaluation of MTM services provided to 506 seniors	Faculty as investigator	Clinical; economic
2005	Kiel PJ, McCord AD. Pharmacist impact on clinical outcomes in a diabetes disease management program via collaborative practice. <i>Ann Pharmacother.</i> 2005;39:1828-1832.	Outcome evaluation of a pharmacist-coordinated diabetes management program that included 157 patients	Faculty as investigator	Clinical
2005	Malone M, Alger-Mayer SA, Anderson DA. The lifestyle challenge program: a multidisciplinary approach to weight management. <i>Ann Pharmacother.</i> 2005;39:2015-2020.	Analysis of an interprofessional weight loss program conducted in a outpatient clinic that included 90 patients managed by a physician, behavioral psychologist, and pharmacist	Faculty as investigator	Clinical; humanistic
2005	Odegard PS, Goo A, Hummel J, Williams KL, Gray SL. Caring for poorly controlled diabetes mellitus: a randomized pharmacist intervention. <i>Ann Pharmacother.</i> 2005;39:433-440.	Randomized study conducted in 8 university-based clinics that included 77 patients with diabetes comparing pharmacist intervention with usual care in collaboration with health care providers	Faculty as service provider; faculty as investigator	Clinical
2005	Rathbun RC, Farmer KC, Stephens JR, Lockhart SM. Impact of an adherence clinic on behavioral outcomes and virologic response in treatment of HIV infection: a prospective, randomized, controlled pilot study. <i>Clin Ther.</i> 2005;27:199-209.	Prospective, randomized evaluation of adherence that included 33 patients with HIV in pharmacist-managed or other provider-managed group	Faculty as investigator; faculty as service provider	Clinical

2005	Shane-McWhorter L, Oderda GM. Providing diabetes education and care to underserved patients in a collaborative practice at a Utah community health center. <i>Pharmacotherapy</i> . 2005;25:96-109.	*Retrospective comparison of pharmacist-provided diabetes care in an ambulatory care clinic versus a control clinic that included 352 patients with diabetes and collaboration with physicians and other physician extenders	Faculty as service provider; faculty as investigator	Clinical
2005	Stebbins MR, Kaufman DJ, Lipton HL. The PRICE clinic for low-income elderly: a managed care model for implementing pharmacist-directed services. <i>J Manag Care Pharm</i> . 2005;11:333-341.	Outcome evaluation of a pharmacist-led database review of 520 low-income, elderly patients	Faculty as investigator	Economic
2004	Adler DA, Bungay KM, Wilson IB, Pei Y, Supran S, Peckham E, Cynn DJ, Rogers WH. The impact of a pharmacist intervention on 6-month outcomes in depressed primary care patients. <i>Gen Hosp Psychiatry</i> . 2004;26:199-209.	Randomized trial conducted in primary care practices that included 533 patients with depression in 9 sites and pharmacist-physician collaboration	Academic connection to medical school	Clinical
2004	Bungay KM, Adler DA, Rogers WH, McCoy C, Kaszuba M, Supran S, Pei Y, Cynn DJ, Wilson IB. Description of a clinical pharmacist intervention administered to primary care patients with depression. <i>Gen Hosp Psychiatry</i> . 2004;26:210-8.	Description of the pharmacist intervention in a randomized trial (see Adler 2004) conducted in primary care practices that included patients with depression in 9 sites and pharmacist-physician collaboration	Academic connection to medical school	Clinical
2004	Capoccia KL, Boudreau DM, Blough DK, Ellsworth AJ, Clark DR, Stevens NG, Katon WJ, Sullivan SD. Randomized trial of pharmacist interventions to improve depression care and outcomes in primary care. <i>Am J Health Syst Pharm</i> . 2004;61:364-72.	*Randomized trial conducted in a university-based family practice that included 74 patients with depression and collaboration of a large multidisciplinary mental health care team	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2004	Farris KB, Côté I, Feeny D, Johnson JA, Tsuyuki RT, Brilliant S, Dieleman S. Enhancing primary care for complex patients. Demonstration project using multidisciplinary teams. <i>Can Fam Physician</i> . 2004;50:998-1003.	Description of a community-based primary health care team model that included 6 teams, 199 patients, and collaboration of a family physician, pharmacist, nurses, and a home care case manager	Faculty as investigator	Clinical
2004	Hilleman DE, Faulkner MA, Monaghan MS. Cost of a pharmacist-directed intervention to increase treatment of hypercholesterolemia. <i>Pharmacotherapy</i> . 2003;24:1077-1083.	Outcomes study of a pharmacist-led hypercholesterolemia intervention at primary care clinics that included 612 patients and physician collaboration	Faculty as investigator	Clinical; economic
2004	Leal S, Glover JJ, Herrier RN, Felix A. Improving quality of care in diabetes through a comprehensive pharmacist-based disease management program. <i>Diabetes Care</i> . 2004;27:2983-2984.	*Outcome study conducted in a community health center that included 199 patients with diabetes and collaboration of physicians and other health care providers	Faculty as service provider; faculty as investigator	Clinical
2004	Murray MD, Young JM, Morrow DG, et al. Methodology of an ongoing, randomized, controlled trial to improve drug use for elderly patients with chronic heart failure. <i>Am J Geriatr Pharmacother</i> . 2004;2:53-65.	Description of the methodology of a randomized trial (see Murray 2007) conducted in an academic medical center that included patients with heart failure and low health literacy	Faculty as investigator	Clinical; humanistic
2004	Odegard PS, Lam A, Chun A, et al. Pharmacist provision of language-appropriate education for Asian patients with asthma. <i>J Am Pharm Assoc</i> . 2004;44:472-477.	Retrospective evaluation of language appropriate asthma education for Asian patients at a community health center that included 32 patients with asthma and physician collaboration	Faculty as service provider; faculty as investigator	Clinical
2003	Borenstein JE, Graber G, Saltiel E, et al. Physician-pharmacist comanagement of hypertension: a randomized, comparative trial. <i>Pharmacotherapy</i> . 2003;23:209-216.	Outcomes study conducted an outpatient group practice that included 197 patients with hypertension	Faculty as investigator	Clinical; humanistic

2003	Ernst ME, Brandt KB. Evaluation of 4 years of clinical pharmacist anticoagulation case management in a rural, private physician office. <i>J Am Pharm Assoc.</i> 2003;43:630-636.	Outcome evaluation conducted at a primary care clinic that included 80 anticoagulation therapy patients and physician collaboration	Faculty as investigator	Clinical; humanistic
2003	Grant RW, Devita NG, Singer DE, Meigs JB. Improving adherence and reducing medication discrepancies in patients with diabetes. <i>Ann Pharmacother.</i> 2003;37:962-969.	Experimental study in an academically-affiliated community health center that included 462 patients with diabetes	Faculty as investigator; residency training site; Experiential education site	Clinical
2003	Rothman R, Malone R, Bryant B, Horlen C, Pignone M. Pharmacist-led, primary care-based disease management improves hemoglobin A1c in high-risk patients with diabetes. <i>Am J Med Qual.</i> 2003;18:51-8.	Non-experimental study conducted in an academic internal medicine practice that included 138 patients with diabetes	Faculty as service provider; Faculty as investigator	Clinical
2003	Sellors J, Kaczorowski J, Sellors C, Dolovich L, Woodward C, Willan A, Goeree R, Cosby R, Trim K, Sebaldt R, Howard M, Hardcastle L, Poston J. A randomized controlled trial of a pharmacist consultation program for family physicians and their elderly patients. <i>CMAJ.</i> 2003;169:17-22.	Randomized trial that involved 24 community pharmacists providing consultations on 889 elderly patients at 48 family physician offices	Faculty as investigator	Clinical; economic; humanistic
2003	Taylor CT, Byrd DC, Krueger K. Improving primary care in rural Alabama with a pharmacy initiative. <i>Am J Health Syst Pharm.</i> 2003;60:1123-1129.	Quasi-experimental study conducted in a community based clinic that included 69 patients receiving pharmacist-provided chronic care management services	Faculty as investigator	Clinical; economic
2002	Boudreau DM, Capoccia KL, Sullivan SD, Blough DK, Ellsworth AJ, Clark DL, Katon WJ, Walker EA, Stevens NG. Collaborative care model to improve outcomes in major depression. <i>Ann Pharmacother.</i> 2002;36:585-91.	*Description of the practice model used in a randomized trial (see Capoccia 2004) in a university-based family practice that included patients with depression and collaboration of a large multidisciplinary mental health care team	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical; humanistic
2000	Bozovich M, Rubino CM, Edmunds J. Effect of a clinical pharmacist-managed lipid clinic on achieving National Cholesterol Education Program low-density lipoprotein goals. <i>Pharmacotherapy.</i> 2000;20:1375-1383	Analysis of a pharmacist-managed lipid clinic that included 104 patients and collaboration with a cardiologist	Faculty as investigator	Clinical, humanistic
2000	Davidson MB, Karlan VJ, Hair TL. Effect of a pharmacist-managed diabetes care program in a free medical clinic. <i>Am J Med Qual.</i> 2000;15:137-42.	*Quasi-experimental study conducted in a free medical clinic that included 181 patients with diabetes and collaboration with a diabetologist	Cannot determine or not reported	Clinical
2000	Faulkner MA, Wadibia EC, Lucas BD, Hilleman DE. Impact of pharmacy counseling on compliance and effectiveness of combination lipid-lowering therapy in patients undergoing coronary artery revascularization: a randomized, controlled trial. <i>Pharmacotherapy.</i> 2000;20:410-416.	Analysis of 30 patients recruited for lipid management care following hospitalization in a university-affiliated tertiary care hospital and university cardiac center	Faculty as investigator	Clinical; humanistic
2000	Gammaitoni AR, Gallagher RM, Welz M, et al. Palliative pharmaceutical care: A randomized, prospective study of telephone-based prescription and medication and counseling services for treating chronic pain. <i>Pain Med.</i> 2000;1:317-331.	Outcomes study conducted in a university pain clinic that included 74 patients with pain	Cannot determine or not reported	Humanistic

1999	Gattis WA, Hasselblad V, Whellan DJ, O'Connor CM. Reduction in heart failure events by the addition of a clinical pharmacist to the heart failure management team: results of the Pharmacist in Heart Failure Assessment Recommendation and Monitoring (PHARM) Study. <i>Arch Intern Med.</i> 1999;159:1939-1945.	Randomized study conducted at a university medical center that included 181 patients with heart failure and physician collaboration	Cannot determine or not reported	Clinical
1996	Lamsam GD, Stone BA, Rumsey T, Shevlin JM, Scott BE, Reif CJ. Pharmaceutical services for a homeless population. <i>Am J Health Syst Pharm.</i> 1996;53:1426-30.	Description of a medication program for homeless persons conducted in 12 shelters and 2 drop-in centers and included collaboration of a physician, pharmaceutical representative, nurses, and pharmacists	Cannot determine or not reported	Clinical; economic

Community Pharmacy Models

2009	Fera T, Bluml BM, Ellis WM. Diabetes Ten City Challenge: final economic and clinical results. <i>J Am Pharm Assoc.</i> 2009;49:383-91.	*Quasi-experimental study conducted at 10 community pharmacy sites that included 573 patients for diabetes, lipids, BP, immunizations, and screenings in collaboration with physicians	Faculty as service provider	Clinical; economic
2009	Hirsch JD, Rosenquist A, Best BM, Miller TA, Gilmer TP. Evaluation of the first year of a pilot program in community pharmacy: HIV/AIDS medication therapy management for Medi-Cal beneficiaries. <i>J Manag Care Pharm.</i> 2009;15:32-41.	*Non-experimental observational study conducted in 10 community pharmacies that included 1353 patients with HIV and physician collaboration	Faculty as investigator	Clinical; economic
2009	Western University. <i>Call for Successful Practices.</i> Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	Description of a practice model in a community pharmacy that serves patients' travel health needs	Faculty as service provider	Clinical; humanistic
2008	APhA, NACDS Foundation, et al. Medication therapy management in pharmacy practice: core elements of an MTM service model (version 2.0). <i>J Am Pharm Assoc.</i> 2008;48:341-53.	APhA/NACDS Foundation description of core elements in a MTM service model	Faculty on advisory board	N/A
2008	Bunting BA, Smith BH, Sutherland SE. The Asheville Project: clinical and economic outcomes of a community-based long-term medication therapy management program for hypertension and dyslipidemia. <i>J Am Pharm Assoc.</i> 2008;48:23-31.	Quasi-experimental study conducted in 12 community pharmacies and ambulatory care clinics that included 620 patients receiving MTM services for hypertension and dyslipidemia and PCP collaboration	Cannot determine or not reported	Clinical; economic
2008	Fera T, Bluml BM, Ellis WM, Schaller CW, Garrett DG. The Diabetes Ten City Challenge: interim clinical and humanistic outcomes of a multisite community pharmacy diabetes care program. <i>J Am Pharm Assoc.</i> 2008;48:181-90.	Outcome evaluation conducted in community pharmacy that included 914 patients with diabetes at 10 sites and physician collaboration	Cannot determine or not reported	Clinical
2008	Hare SK, Kraenow K. Depression screenings: developing a model for use in a community pharmacy. <i>J Am Pharm Assoc.</i> 2008;48:46-51.	Description of the development and testing of a depression screening tool that was conducted at 4 community pharmacy sites and included 18 patients	Residency training site; faculty as investigator	Clinical
2008	Johnson JF, Koenigsfeld C, Hughell L, Parsa RA, Bravard S. Bone health screening, education, and referral project in northwest Iowa: creating a model for community pharmacies. <i>J Am Pharm Assoc.</i> 2008;48:379-87.	Outcome evaluation conducted in community pharmacy that included 159 patients at 5 sites	Faculty as investigator; faculty as service provider; fellowship training site; experiential education site	Clinical

2007	Goode JV, Mott DA, Stanley DD. Assessment of an immunization program in a supermarket chain pharmacy. <i>J Am Pharm Assoc.</i> 2007;47:495-8.	*Description of a community pharmacy-based immunization service over 8 years at 11 sites where pharmacists provided over 150,000 immunizations	Faculty as service provider; faculty who directs services	Clinical; economic; humanistic
2007	Nau DP, Pacholski AM. Impact of pharmacy care services on patients' perceptions of health care quality for diabetes. <i>J Am Pharm Assoc.</i> 2007;47:358-365.	Description of a pharmacist implemented self-care program for diabetes based out of multiple community pharmacies in 4 states that included 218 patients covered by a self-insured employer based health plan, in collaboration with physicians	Faculty as service provider; faculty as investigator	Humanistic
2006	Bunting BA, Cranor CW. The Asheville Project: long-term clinical, humanistic, and economic outcomes of a community-based medication therapy management program for asthma. <i>J Am Pharm Assoc.</i> 2006;46:133-147.	Outcome evaluation conducted in community pharmacies and hospital that included 13 sites and 207 patients with asthma	Faculty as service provider; faculty who directs services; faculty as investigator	Clinical; economic; humanistic
2006	Hansen RA, Roth MT, Brouwer ES, Herndon S, Christensen DB. Medication therapy management services in North Carolina community pharmacies: current practice patterns and projected demand. <i>J Am Pharm Assoc.</i> 2006;46:700-6.	Cross-sectional study of 1,593 community pharmacy managers detailing provision of MTM services in North Carolina community pharmacies	Faculty as investigator	Clinical; economic
2005	Garrett DG, Bluml BM. Patient self-management program for diabetes: first-year clinical, humanistic, and economic outcomes. <i>J Am Pharm Assoc.</i> 2005;45:130-137.	Quasi-experimental study conducted at 80 community pharmacy locations that included 256 patients with diabetes	Cannot determine or not reported	Clinical; economic
2005	Law AV, Shapiro K. Impact of a community pharmacist-directed clinic in improving screening and awareness of osteoporosis. <i>J Eval Clin Pract.</i> 2005;11:247-255.	Outcomes study conducted in an independent community pharmacy that included 111 patients that assessed patient awareness of osteoporosis and intention to follow up with a PCP	Faculty as investigator	Humanistic
2005	Yamada C, Johnson JA, Robertson P, Pearson G, Tsuyuki RT. Long-term impact of a community pharmacist intervention on cholesterol levels in patients at high risk for cardiovascular events: extended follow-up of the second study of cardiovascular risk intervention by pharmacists (SCRIP-plus). <i>Pharmacotherapy.</i> 2005;25:110-5.	Outcome evaluation in an ambulatory care clinic that included 162 patients with lipid disorders at 26 sites and physician collaboration	Academic connection to medical school	Clinical
2004	Tsuyuki RT, Olson KL, Dubyk AM, Schindel TJ, Johnson JA. Effect of community pharmacist intervention on cholesterol levels in patients at high risk of cardiovascular events: the Second Study of Cardiovascular Risk Intervention by Pharmacists (SCRIP-plus). <i>Am J Med.</i> 2004;116:130-3.	Non-experimental study conducted in 42 community pharmacies that included 419 patients at very high risk of cardiovascular events	Faculty as investigator	Clinical
2004	Zeolla MM, Cerulli J. Assessment of the effects of a community pharmacy women's health education program on management of menopause survey scores. <i>J Manag Care Pharm.</i> 2004;10:442-448.	Quasi-experimental study conducted in community pharmacy that included 31 menopausal women	Faculty as service provider; faculty as investigator	Clinical; humanistic
2003	Ahrens RA, Hower M, Best AM. Effects of weight reduction interventions by community pharmacists. <i>J Am Pharm Assoc.</i> 2003;43:583-589.	Outcomes study of weight management program conducted in community pharmacy that included 95 obese patients	Faculty as investigator	Clinical; humanistic
2003	Chrischilles EA, Carter BL, Lund BC, et al. Evaluation of the Iowa Medicaid pharmaceutical case management program. <i>J Am Pharm Assoc.</i> 2004;44:337-349.	Prospective cohort study conducted at 114 community pharmacies that provided a pharmaceutical case management service to 2,211 Medicaid eligible patients	Faculty as investigator	Clinical; economic

2003	Cranor CW, Bunting BA, Christensen DB. The Asheville Project: long-term clinical and economic outcomes of a community pharmacy diabetes care program. <i>J Am Pharm Assoc.</i> 2003;43:173-84.	Quasi-experimental study conducted in 12 community pharmacies that included 194 patients with diabetes	Faculty as investigator	Clinical; economic; humanistic
2003	Cranor CW, Christensen DB. The Asheville Project: short-term outcomes of a community pharmacy diabetes care program. <i>J Am Pharm Assoc.</i> 2003;43:149-59.	Quasi-experimental study conducted in 12 community pharmacies that included 85 patients with diabetes	Faculty as investigator	Clinical; economic; humanistic
2003	Garrett DG, Martin LA. The Asheville Project: participants' perceptions of factors contributing to the success of a patient self-management diabetes program. <i>J Am Pharm Assoc.</i> 2003;43:185-90.	Focus groups conducted of participants in the Asheville Project, a quasi-experimental study conducted in 12 community pharmacies that included patients with diabetes	Cannot determine or not reported	Humanistic
2003	Malone M, Alger-Mayer SA. Pharmacist intervention enhances adherence to orlistat therapy. <i>Ann Pharmacother.</i> 2003;37:1598-1602.	Analysis of patient persistence to orlistat therapy conducted in community pharmacies that included 30 patients	Faculty as investigator; faculty who directs services; faculty as service provider	Clinical
2003	McLean W, Gillis J, Waller R. The BC Community Pharmacy Asthma Study: A study of clinical, economic and holistic outcomes influenced by an asthma care protocol provided by specially trained community pharmacists in British Columbia. <i>Can Respir J.</i> 2003;10:195-202.	Study conducted in 18 community pharmacies that included 242 patients with asthma	Cannot determine or not reported	Clinical; economic; humanistic
2003	West D, Blevins MA, Brech D, Stotts F, Gardner S. A multidisciplinary approach in a community pharmacy can improve outcomes for diabetes patients. <i>Diabetes Educ.</i> 2003;29:962-968.	Outcome evaluation of a pharmacist-coordinated diabetes management program that included 30 patients and collaboration of a full multidisciplinary team	Faculty as investigator	Clinical
2002	Osterhaus JT, Dedhiya SD, Ernst ME, Osterhaus M, Mehta SS, Townsend RJ. Health outcomes assessment in community pharmacy practices: a feasibility project. <i>Arthritis Rheum.</i> 2002;47:124-31.	Non-experimental study conducted in 12 community pharmacies that included 461 patients with musculoskeletal disorders	Faculty as investigator	Clinical; humanistic
2002	Weinberger M, Murray MD, Marrero DG, Brewer N, Lykens M, Harris LE, Seshadri R, Caffrey H, Roesner JF, Smith F, Newell AJ, Collins JC, McDonald CJ, Tierney WM. Effectiveness of pharmacist care for patients with reactive airways disease: a randomized controlled trial. <i>JAMA.</i> 2002;288:1594-602.	Randomized trial conducted in 36 community pharmacies that included 1,113 patients with asthma or COPD	Faculty as investigator	Clinical; humanistic
2002	Zillich AJ, Ryan M, Adam A, et al. Effectiveness of a pharmacist-based smoking-cessation program and its impact on quality of life. <i>Pharmacotherapy.</i> 2002;22:759-765.	Descriptive study of a smoking cessation program provided in a university hospital outpatient pharmacy that included 31 patients	Faculty as service provider; faculty as investigator; residency training site	Clinical; humanistic
2001	Giles JT, Kennedy DT, Dunn EC, et al. Results of a community pharmacy-based breast cancer risk-assessment and education program. <i>Pharmacotherapy.</i> 2001;21:243-253.	Analysis conducted in 6 community pharmacies that included 137 patients who were educated on breast self-examination and other breast health care indicators	Faculty as investigator	Humanistic

Integrated Models

2010	Roberts S, Gainsbrugh R. Medication therapy management and collaborative drug therapy management. <i>J Manag Care Pharm.</i> 2010;16:67-69.	*Description of a MTM practice model at Kaiser Permanente that included 330 patients and physician collaboration	Cannot determine or not reported	Clinical; humanistic
2009	Indian Health Service. <i>Call for Successful Practices.</i> Available at: http://www.aacp.org/resources/education/Pages/SuccessfulPracticesinPharmaceuticalEducation.aspx . Accessed May 1, 2010.	*Description of a practice model that serves patients with diabetes and hypertension at 8 sites in collaboration with a full interdisciplinary, interprofessional health care team	Residency training site; experiential education site	Clinical; humanistic
2008	Green BB, Cook AJ, Ralston JD, et al. Effectiveness of home blood pressure monitoring, web communication, and pharmacist care on hypertension control: a randomized controlled trial. <i>JAMA</i> , 2008;299:2857-2867.	Randomized controlled study conducted in a large managed care organization that included 10 clinics and 778 patients with hypertension and compared pharmacist intervention with web assistance and home BP monitoring with 2 other groups (web assistance only and usual care)	Faculty as investigator	Clinical
2008	Nadrash TA, Plushner SL, Delate T. Clinical pharmacists' role in improving osteoporosis treatment rates among elderly patients with untreated atraumatic fractures. <i>Ann Pharmacother.</i> 2008;42:334-40.	Outcome evaluation in a managed care organization that included 137 patients with fractures and physician collaboration	Faculty as investigator	Clinical
2007	Dole EJ, Murawski MM, Adolphe AB, Aragon FD, Hochstadt B. Provision of pain management by a pharmacist with prescribing authority. <i>Am J Health Syst Pharm.</i> 2007;64:85-9.	*Description of a chronic pain service conducted in an integrated health-system that included 564 patients and collaboration with PCPs	Faculty as service provider; faculty as investigator	Clinical; economic
2007	Smith JP, Dong MH and Kaunitz JD. Evaluation of a pharmacist-managed hepatitis C care clinic. <i>Am J Health Syst Pharm.</i> 2007;64:632-6.	*Description of a practice model in a VAMC (gastroenterology) that included 27 patients with hepatitis C and collaboration with a gastroenterology physician	Cannot determine or not reported	Clinical
2006	Collins C, Kramer A, O'Day ME and Low MB. Evaluation of patient and provider satisfaction with a pharmacist-managed lipid clinic in a Veterans Affairs medical center. <i>Am J Health Syst Pharm.</i> 2006;63:1723-7.	Outcomes study conducted in a VA ambulatory care clinic that included 105 patients with lipid disorders and collaboration with 49 referring healthcare providers	Residency training site	Clinical; humanistic
2006	Kicklighter CE, Nelson KM, Humphries TL and Delate T. An evaluation of a clinical pharmacy-directed intervention on blood pressure control. <i>Pharmacy Pract.</i> 2006;4:110-116.	Analysis conducted in a managed care clinic that compared pharmacist collaboration with physicians versus usual care and included 224 patients with hypertension	Residency training site	Clinical
2006	Lee JK, Grace KA, Taylor AJ. Effect of a pharmacy care program on medication adherence and persistence, blood pressure, and low-density lipoprotein cholesterol: a randomized controlled trial. <i>JAMA</i> , 2006;296:2563-2571.	Outcomes study conducted in a VAMC-based MTM clinic that included 200 elderly patients with coronary risk factors	Faculty as investigator; faculty as service provider	Clinical; economic
2006	McCord AD. Clinical impact of a pharmacist-managed diabetes mellitus drug therapy management service. <i>Pharmacotherapy.</i> 2006;26:248-53.	Quasi-experimental study conducted in a managed care physician group that evaluated pharmacy impact on 316 patients with diabetes	Faculty as investigator; faculty as service provider	Clinical
2006	Shah S, Dowell J, Greene S. Evaluation of clinical pharmacy services in a hematology/oncology outpatient setting. <i>Ann Pharmacother.</i> 2006;40:1527-33.	Description of clinical pharmacy services in a VA ambulatory care hematology/oncology clinic that included 423 patients and collaboration with oncologists and hematologists	Faculty as investigator; faculty as service provider; residency training site; experiential education site	Clinical
2006	Taveira TH, Wu WC, Martin OJ, Schleinitz MD, Friedmann P, Sharma SC. Pharmacist-led cardiac risk reduction model. <i>Prev Cardiol.</i> 2006;9:202-8.	Description of a practice model in a VAMC cardiology clinic that included 375 patients and collaboration of a large multidisciplinary team	Faculty as service provider; faculty as investigator	Clinical

2006	Winterbottom LM, Fong AM, Benkstein KL, et al. Impact of a clinical pharmacy consult service on guideline adherence and management of gabapentin for neuropathic pain. <i>J Manag Care Pharm.</i> 2005;12:61-69.	Quasi-experimental study conducted in the VA that included 124 patients and documented clinical pharmacy service impact on gabapentin guideline adherence for neuropathic pain	Cannot determine or not reported	Clinical
2005	Mazzolini TA, Irons BK, Schell EC, Seifert CF. Lipid levels and use of lipid-lowering drugs for patients in pharmacist-managed lipid clinics versus usual care in 2 VA Medical Centers. <i>J Manag Care Pharm.</i> 2005;11:763-71.	Quasi-experimental study conducted at 2 VAMC lipid clinics that included 115 patients with lipid abnormalities and collaboration of a multidisciplinary team	Faculty as service provider; faculty as investigator	Clinical
2005	Olson KL, Rasmussen J, Sandhoff BG, Merenich JA; Clinical Pharmacy Cardiac Risk Service Study Group. Lipid management in patients with coronary artery disease by a clinical pharmacy service in a group model health maintenance organization. <i>Arch Intern Med.</i> 2005;165:49-54.	Non-experimental observational study conducted in a Kaiser Permanente group that included 8014 patients with lipid abnormalities and collaboration of a multidisciplinary team	Faculty as service provider; faculty as investigator	Clinical
2005	Straka RJ, Taheri R, Cooper SL, Smith JC. Achieving cholesterol target in a managed care organization (ACTION) trial. <i>Pharmacotherapy.</i> 2005;25:360-371.	*Controlled trial conducted in 4 managed care clinics that compared pharmacist collaboration with physicians versus usual care to control dyslipidemia and included 481 patients with CHD	Faculty as service provider; faculty as investigator	Clinical
2005	Zarowitz BJ, Stebelsky LA, Muma BK, et al. Reduction of high-risk polypharmacy drug combinations in patients in a managed care setting. <i>Pharmacotherapy.</i> 2005;25:1636-1645.	Time-series cohort outcome evaluation of polypharmacy awareness and detection in over 100,000 patients enrolled in a managed care plan in collaboration with physician specialty clinic	Cannot determine or not reported	Clinical; economic
2004	Cioffi ST, Caron MF, Kalus JS, et al. Glycosylated hemoglobin, cardiovascular, and renal outcomes in a pharmacist-managed clinic. <i>Ann Pharmacother.</i> 2004;38:771-775.	Outcome evaluation conducted in a VA that included 70 patients with diabetes and collaboration of a multidisciplinary, multiprofessional care team	Faculty as investigator	Clinical
2004	Pineros SL, Sales AE, Li YF, Sharp ND. Improving care to patients with ischemic heart disease: experiences in a single network of the Veterans Health Administration. <i>Worldviews Evid Based Nurs.</i> 2004;1:33-40.	Description of 3 different interventions to improve LDL in 2,467 ischemic heart disease patients conducted within a VA regional network that included collaboration of a multidisciplinary care team	Cannot determine or not reported	Clinical
2003	Finley PR, Rens HR, Pont JT, Gess SL, Louie C, Bull SA, Lee JY, Bero LA. Impact of a collaborative care model on depression in a primary care setting: a randomized controlled trial. <i>Pharmacotherapy.</i> 2003;23:1175-85.	*Randomized study conducted in a Kaiser Permanente Medical Center that included 125 patients with depression	Faculty as investigator	Clinical; economic; humanistic
2003	Till LT, Voris JC, Horst JB. Assessment of clinical pharmacist management of lipid-lowering therapy in a primary care setting. <i>J Manag Care Pharm.</i> 2003;9:269-73.	*Quasi-experimental study conducted in a VAMC that included 88 patients on lipid medications	Faculty as investigator	Clinical
2003	Yuan Y, Hay JW, McCombs JS. Effects of ambulatory-care pharmacist consultation on mortality and hospitalization. <i>Am J Manag Care.</i> 2003;9:45-56.	Study conducted at a Kaiser Permanente clinic that included 5,499 patients in a multidisciplinary clinic	Faculty as investigator	Clinical; economic
2002	Cording MA, Engelbrecht-Zadvorny EB, Pettit BJ, Eastham JH, Sandoval R. Development of a pharmacist-managed lipid clinic. <i>Ann Pharmacother.</i> 2002;36:892-904.	*Description of a pharmacist-managed lipid clinic conducted in a military-based teaching hospital that also reports outcomes for 115 patients	Faculty as service provider; faculty as investigator	Clinical

2002	Finley PR, Rens HR, Pont JT, Gess SL, Louie C, Bull SA, Bero LA. Impact of a collaborative pharmacy practice model on the treatment of depression in primary care. <i>Am J Health Syst Pharm.</i> 2002;59:1518-26.	*Quasi-experimental study conducted in Kaiser Permanente that included 220 patients with depression	Faculty as investigator	Clinical; humanistic
2002	Irons BK, Lenz RJ, Anderson SL, Wharton BL, Habeger B, Anderson HG Jr. A retrospective cohort analysis of the clinical effectiveness of a physician-pharmacist collaborative drug therapy management diabetes clinic. <i>Pharmacotherapy.</i> 2002;22:1294-300.	*Quasi-experimental study conducted in a primary care clinic in a prison facility that included 172 patients with diabetes and physician-pharmacist collaboration	Faculty as service provider; faculty as investigator	Clinical
2001	Malone DC, Carter BL, Billups SJ, Valuck RJ, Barnette DJ, Sintek CD, Okano GJ, Ellis S, Covey D, Mason B, Jue S, Carmichael J, Guthrie K, Sloboda L, Dombrowski R, Geraets DR, Amato MG. Can clinical pharmacists affect SF-36 scores in veterans at high risk for medication-related problems? <i>Med Care.</i> 2001;39:113-22.	*Experimental study conducted in VAMC that included 1,054 patients in 9 sites	Faculty as investigator	Humanistic
2001	Okamoto MP, Nakahiro RK. Pharmacoeconomic evaluation of a pharmacist-managed hypertension clinic. <i>Pharmacotherapy.</i> 2001;21:1337-44.	Experimental study conducted in Kaiser Permanente that included 330 patients with hypertension	Faculty as investigator	Clinical; economic; humanistic
2001	Roth MT, Westman EC. Use of bupropion SR in a pharmacist-managed outpatient smoking-cessation program. <i>Pharmacotherapy.</i> 2001;21:636-41.	*Non-experimental study conducted in a VAMC that included 71 patients who were tobacco users	Faculty as service provider; faculty as investigator	Clinical
2001	To LL, Stoner CP, Stolley SN, et al. Effectiveness of a pharmacist-implemented anemia management protocol in an outpatient hemodialysis unit. <i>Am J Health Syst Pharm.</i> 2001;58:2061-2065.	Retrospective study of anemia protocol in 49 VA dialysis patients	Residency training site	Clinical
2000	Dunham DM, Stewart RD, Laucka PV. Low-density-lipoprotein cholesterol in patients treated by a lipid clinic versus a primary care clinic. <i>Am J Health Syst Pharm.</i> 2000;57:2285-6.	*Quasi-experimental study conducted in a VAMC that included 120 patients who received care in either a pharmacist-managed or PCP-managed lipid clinic	Residency training site	Clinical; economic
2000	Yanchick JK. Implementation of a drug therapy monitoring clinic in a primary-care setting. <i>Am J Health Syst Pharm.</i> 2000;57:S30-4.	Non-experimental study conducted in a primary care clinic in a military hospital that included an average of 104 patients/month with a variety of chronic medical conditions	Residency training site; Experiential education site	Clinical; economic
1999	Coast-Senior EA, Kroner BA, Kelley CL, Trilli LE. Management of patients with type 2 diabetes by pharmacists in primary care clinics. <i>Ann Pharmacother.</i> 1998;32:636-41.	*Non-experimental study conducted in a VAMC that included 23 patients with diabetes	Faculty as service provider; faculty as investigator	Clinical
1999	Foss MT, Schoch PH, Sintek CD. Efficient operation of a high-volume anticoagulation clinic. <i>Am J Health Syst Pharm.</i> 1999;56:443-9.	*Description of an anticoagulation clinic conducted in a VAMC that included 600 patients	Residency training site; experiential education site	Clinical

Other Models

2009	Carter BL, Rogers M, Daly J, Zheng S, James PA. The potency of team-based care interventions for hypertension: a meta-analysis. <i>Arch Intern Med.</i> 2009;169:1748-55.	Systematic review of studies evaluating nurse or pharmacist intervention to improve BP control	Faculty as investigator	Clinical
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2008	American College of Clinical Pharmacy, Harris IM, Baker E, Berry TM, Halloran MA, Lindauer K, Ragucci KR, McGivney MS, Taylor AT, Haines ST. Developing a business-practice model for pharmacy services in ambulatory settings. <i>Pharmacotherapy</i> . 2008;28:285.	ACCP White Paper on developing a pharmacy business-practice model in ambulatory care	Faculty as investigator	Clinical; economic; humanistic
2008	Kliethermes MA, Schullo-Feulner AM, Tilton J, Kim S, Pellegrino AN. Model for medication therapy management in a university clinic. <i>Am J Health Syst Pharm</i> . 2008;65:844-56.	Description of an MTM clinic that operates as a subunit of a university medical center-based community pharmacy	Faculty as investigator; faculty as service provider; experiential education site	Clinical
2007	Christensen DB, Roth M, Trygstad T, Byrd J. Evaluation of a pilot medication therapy management project within the North Carolina State Health Plan. <i>J Am Pharm Assoc</i> . 2007;47:471-483.	Description of a community-based MTM self-insured model that included 67 patients	Faculty as investigator; faculty as service provider	Clinical; economic; humanistic
2006	Lapane KL, Hughes CM. Pharmacotherapy interventions undertaken by pharmacists in the Fleetwood phase III study: the role of process control. <i>Ann Pharmacother</i> . 2006;40:1522-6.	Process assessment of the intervention arm of The Fleetwood Phase III study that included 4,272 patients in 12 nursing homes and provision of recommendations by dispensing and consultant pharmacists to physicians	Faculty as investigator	Clinical
2002	Schommer JC, Byers SR, Pape LL, Cable GL, Worley MM, Sherrin T. Interdisciplinary medication education in a church environment. <i>Am J Health Syst Pharm</i> . 2002;59:423-8.	Non-experimental study conducted in 20 churches that included 187 patients and pharmacist-nurse collaboration to provide medication education	Faculty as investigator; experiential education site	Clinical
1999	Baran RW, Crumlish K, Patterson H, Shaw J, Erwin WG, Wylie JD, Duong P. Improving outcomes of community-dwelling older patients with diabetes through pharmacist counseling. <i>Am J Health Syst Pharm</i> . 1999;56:1535-9.	Non-experimental study conducted in 10 different settings that included 88 patients with diabetes	Faculty as investigator	Clinical; humanistic
1996	Slack MK, McEwen MM, Carter JT, Brueckner RL. Case management delivery model for pharmacy. <i>Am J Health Syst Pharm</i> . 1996;53:2860-7.	Description of the case management delivery model and the implications for pharmacists	Faculty as investigator	N/A

KEY: ACCP = American College of Clinical Pharmacy, AHEC = Area Health Education Center, APhA = American Pharmacists Association, BP = blood pressure, CHD = coronary heart disease, COPD = chronic obstructive pulmonary disease, CVD = cardiovascular disease, HIV = human immunodeficiency virus, LDL = low density lipoprotein, LPN = licensed practical nurse, MTM = medication therapy management, N/A = not applicable, NACDS = National Association of Chain Drug Stores, NP = nurse practitioner, Ob/GYN = obstetrics/gynecology; PA = physician assistant, PCP = primary care provider, RN = registered nurse, VA = Veterans Affairs, VAMC = Veterans Affairs Medical Center

* = the model involves the pharmacist(s) working under a protocol, collaborative practice agreement or similar