Abstract
Objective, To assess value-added service of a pharmacist-driven point-of-care spirometry clinic to quantify respiratory disease abnormalities within a primary care physicians office Methods, This retrospective, cohort study was an analysis of physician referred patients who attended our spirometry clinic during 2008-2010 due to pulmonary symptoms or disease. After spirometry testing, data was collected retrospectively to include patient demographics, spirometry results, and pulmonary pharmaceutical interventions. Abnormal spirometry was identified as an obstructive and/or restrictive defect. Results, Sixty-five patients with a primary diagnosis of cough, shortness of breath, or diagnosis of asthma or chronic obstructive pulmonary disease were referred to the spirometry clinic for evaluation. A total of 51 (32 patients with normal spirometry, 19 abnormal spirometry) completed their scheduled appointment. Calculated lung age was lower in normal spirometry (58.1, SD=20 yrs) than abnormal spirometry (78.2, SD=7.5 yrs, p<0.001). Smoking pack years was also lower in normal spirometry (14.4, SD=10.7 yrs) than abnormal spirometry (32.7, SD=19.5 yrs, p=0.004). Resting oxygen saturation of the arterial blood (SaO2) was higher in normal spirometry than abnormal spirometry (98.1% vs 96.5%, p=0.016). Mean change in the forced expiratory volume in one second (FEV1) after administration of bronchodilator was greater in patients with abnormal spirometry compared with normal spirometry (10.9% vs 4.1%, p<0.001). Spirometry testing assisted in addition, discontinuation or altering pulmonary drug regimens in 41/51 patients (80%) and the need for further diagnostic testing or physician referral in 14/51 patients (27.4%). Conclusion, Implementation of a pharmacist-driven spirometry clinic is a value-added service that can be integrated with other clinical pharmacy services within the ambulatory care setting. Further studies are needed to determine the role of pharmacists in performing spirometry testing and measuring performance outcomes of the pulmonary patient.

Keywords
Pharmacists, Point-of-Care Systems, Spirometry, United States.