METHODS: We begin by focusing on the structure of these programs, including facilities, qualification of the teaching staff, and operations of the institution. The types of settings involved in pharmacoeconomic fellowships are illustrated, and the experience and skills of preceptors and fellowship applicants are defined. The processes of pharmacoeconomic fellowships are reviewed, and the different characteristics of these programs such as the research and the educational components are discussed. Potential outcome measures of pharmacoeconomic fellowship programs are discussed. CONCLUSION: A framework for examining the structure, process, and outcome measures for pharmacoeconomic fellowship programs is given. Measures evaluating the outcomes of fellowship programs need to be developed. Further research is needed to determine the effectiveness of pharmacoeconomic fellowship programs.

DEVELOPING A COMPREHENSIVE PERFORMANCE MEASUREMENT DATA SET FOR PHARMACEUTICAL BENEFIT MANAGEMENT PROGRAMS
Long SR1, Hatzmann MH1, Chawla AJ2
1The MEDSTAT Group, Washington, DC, USA; 2Genentech, South San Francisco, CA, USA

Pharmaceutical benefit management (PBM) programs are key to the provision of prescription drugs among those enrolled in health plans. A recent survey of HMOs revealed 600 of 604 HMOs had a drug benefit; and only 57 HMOs of the 600 with a drug benefit did not provide prescription drug coverage through a PBM (PBMI, 2000). Several proposals have advocated use of PBMs to administer outpatient prescription drug benefits for Medicare enrollees. Thus, the demand for accountability and a means to evaluate performance of PBM programs is growing; yet a set of standardized indicators for evaluating PBM performance does not yet exist. OBJECTIVE: Explore the array of functions performed by PBMs and measures used to evaluate PBM performance. Recommend additional measures that should be considered toward development of a comprehensive measurement set for evaluating PBM activities. METHODS: MEDLINE and web searches were conducted to develop a summary of PBM functions and existing PBM-related indicators. Measures used in other performance measurement activities that could be modified to assess PBM performance also were identified. RESULTS: PBM activities fall into four major categories: (1) administrative and management, (2) drug use control, (3) cost containment, and (4) disease management. Monitoring costs and savings of using drug management programs is the main focus of PBM performance measurement to date. Several entities have participated in efforts to develop measures for evaluating pharmaceutical care, but none has defined a comprehensive set of performance measures. Additional measures

OBJECTIVE: This study evaluated attitude of physicians toward formularies as well as services provided by the pharmacy department in a large independent practice association (IPA). METHODS: Surveys (n = 280) were sent to all practitioners in the IPA. The survey requested information on physician use of and satisfaction with the existing printed formulary quick list, their satisfaction with the pharmacy services, and their attitude towards formularies in general using a five-point strongly agree-strongly disagree scale. We received 90 completed surveys with a response rate of 32%. RESULTS: Majority of respondents were staff physicians (87%). Around 31% indicated pediatrics as their specialization followed by family medicine (17%) and internal medicine (17%). Practitioners who indicated that they had received the formulary quick list (37%) were highly satisfied (3.44 ± 0.84) with it. Practitioners were very satisfied with the performance (4.27 ± 0.79), interaction (4.35 ± 0.81), and services offered (4.21 ± 0.79) by the pharmacies. Their attitude towards pharmacist playing a more active role in patient care was positive (3.54 ± 0.98). However, their attitude towards formularies in general was negative. They agreed that formularies increased the amount of time spent making drug choices (4.01 ± 1.1), limited access to the best medicines for patients (3.63 ± 0.88), resulted in less-effective medicines (3.01 ± 0.99), compromised the quality of drugs prescribed (3.36 ± 0.92), and reduced the opportunities to offer the best medication for patients (3.43 ± 0.82). CONCLUSION: Physicians had negative attitude towards formularies in general. However, they were satisfied with the services offered by pharmacists, and they were positive towards more patient care involvement by the pharmacists. Physicians were also satisfied with the formulary quick list offered by the pharmacy department. A plan was developed to provide practitioners with an interactive, intranet-based reference of medications that would assist in prescribing decisions.

PHARMACOECONOMIC FELLOWSHIPS: STRUCTURE, PROCESS, AND OUTCOMES
Maio V, Lofland JH, Girts TK
Thomas Jefferson University, Philadelphia, PA, USA

The escalating demand for pharmacoeconomic research has exceeded the supply of available researchers. Postgraduate pharmacoeconomic fellowships emerged to train and produce quality independent researchers to meet these growing educational needs. However, even after more than ten years in existence, the effectiveness of these programs has not been formally evaluated. In order to determine their effectiveness, first, a set of measures for pharmacoeconomic fellowship programs needs to be developed. OBJECTIVE: To construct a framework to examine the potential structure, process, and outcome measures for pharmacoeconomic fellowship programs. METHODS: Using the Donabedian model, we discuss the structures, processes, and outcomes of pharmacoeconomic fellowship programs. RESULTS: We begin by focusing on the structure of these programs, including facilities, qualification of the teaching staff, and operations of the institution. The types of settings involved in pharmacoeconomic fellowships are illustrated, and the experience and skills of preceptors and fellowship applicants are defined. The processes of pharmacoeconomic fellowships are reviewed, and the different characteristics of these programs such as the research and the educational components are discussed. Potential outcome measures of pharmacoeconomic fellowship programs are discussed. CONCLUSION: A framework for examining the structure, process, and outcome measures for pharmacoeconomic fellowship programs is given. Measures evaluating the outcomes of fellowship programs need to be developed. Further research is needed to determine the effectiveness of pharmacoeconomic fellowship programs.