OBJECTIVES: To investigate the potential impact of the standard Medicare prescription drug benefit on beneficiaries who are high utilizers and on beneficiaries who qualified for the Transitional Assistance Program (TAP). METHODS: Simulation of annual beneficiary out-of-pocket costs under the standard prescription benefit using Medicare discount card claims data for 37,425 enrolled beneficiaries (at least 6 months) who filled at least one prescription between June 2004 and November 2005. The results of this study should closely represent Medicare beneficiaries’ drug using behavior as these data are more accurate than self-reported or survey data. RESULTS: Annually, beneficiaries filled 19 prescriptions, on average, and had out-of-pocket costs of $538. Average out-of-pocket costs among the top quartile of utilizers (more than 26 fills annually) were $1155. Assuming fixed drug utilization patterns, simulated Part D costs demonstrate that all beneficiaries would spend $412 out-of-pocket (excluding premiums), on average, while high utilizers would spend $779. Among high utilizers, 22% would have greater than $2250 in total drug costs and fall into the benefit’s “doughnut hole.” TAP beneficiaries (46%) would have higher out-of-pocket costs under Part D then under the drug card ($429 versus $256; p < 0.001), on average, because Medicare subsidized their first $600 in drug card fills annually. Under the drug card, TAP beneficiaries filled more prescriptions (23 versus 15; p < 0.001) and had lower out-of-pocket costs ($256 versus $781; p < 0.001) annually than non-TAP beneficiaries. CONCLUSION: Out-of-pocket costs under Part D for TAP beneficiaries filled more prescriptions (23 versus 15; p < 0.001) and had lower out-of-pocket costs ($256 versus $781; p < 0.001) annually than non-TAP beneficiaries. CONCLUSIONS: Physicians significantly underestimated the costs for a 30-day supply of atorvastatin within ±$10 of the actual cost. The rating of clinical appropriateness of RDPs was significantly correlated with the rating of the therapeutic equivalence of ACE inhibitors (p = 0.034) and calcium channel blockers (p = 0.019). This result was independent of whether the RDP or a therapeutic equivalence question was asked first. Physicians significantly underestimated the costs for a 30-day supply of two drugs: $28 (33%) for omeprazole and $28 (34%) for atorvastatin. Physicians whose cost estimates for atorvastatin were accurate were significantly less likely to consider RDPs (p = 0.003) and GSPs (p = 0.026) as economically appropriate than were those whose estimates were inaccurate. CONCLUSIONS: BC physicians were more comfortable with the clinical and economic appropriateness of GSPs than with RDPs. While there is great agreement between physicians’ opinions towards RDP and their assessment of therapeutic equivalence within drug classes, similar agreement does not exist between GSPs or RDPs and the accuracy of physi-