



**COMMUNITY PHARMACY FOUNDATION**  
**COMPLETED GRANT SYNOPSIS**

**Implementation of a Pharmacist-Directed Cardiovascular Risk and Medication Management Program for Participants in Construction Trade Benefit Trust Fund**

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Main at Locust Pharmacy Clinic

<b>Objectives</b>	
1. Evaluate the development of a six-month cardiovascular risk management program, 2. Report the results of the program in terms of drug-related problems, healthcare utilization, and patient quality of life, and 3. Identify obstacles faced by the pharmacists in the program implementation	
<b>Methods</b>	
Design	<ul style="list-style-type: none"> <li>• <b>Program description</b>                The collaborators in this study included two local unions of electricians and plumbers, RJ Lee &amp; Associates (a firm managing employee benefit), Main at Locust Pharmacy and the University of Iowa College of Pharmacy. First, the unions, Main at Locust Pharmacy, and RJ Lee discussed the feasibility of this program. After obtaining the unions' approval for the program, Main at Locust Pharmacy and RJ Lee determined the inclusion and exclusion criteria of participants (Appendix A). Using diagnostic codes of medical claims, RJ Lee identified 750 union workers with cardiovascular risk. Next, the pharmacy conducted a mass mailing, sending the identified workers a packet. The packet included (1) a letter describing the cardiovascular risk management program and inviting them to participate, and (2) a brochure about the saving of healthcare costs by medication therapy management. In addition, the pharmacy made follow-up phone calls to these workers, inviting them to participate. The participation was voluntary.                The cardiovascular risk management program lasted six months, and all sessions of group education and medication management services took place in the union halls. There were three group educational sessions that were approximately an hour in length. Topics addressed included dietary strategies, life style changes, risk management strategies, and medication management tips. The sessions occurred during month 1 through month 3.                Following the group educational sessions, the participants met one-on-one with a community pharmacist to receive the medication management services. That is, to have their medications reviewed and cardiovascular risk factors monitored. The procedure and documentation of this program were standardized, based on the pharmacy's previous experience in Iowa Medicaid Pharmaceutical Case Management.<sup>6</sup> Participants were encouraged to attend all sessions of group education and medication management services.</li> <li>• <b>Data collection and analyses</b>                Data collected in the study included (1) types and quantity of drug therapy problems, (2) pharmacists' recommendations and physicians' response, (3) patients' expenditures of medical care</li> </ul>

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and prescription drugs, (4) patients' quality of life, disability days, and sick days, and (5) the experience of involved parties. Table 1 shows the data source for each variable. To calculate the expenditures of medical care, the costs of hospitalization, physician visit, lab, vision exam, and dental exam were combined together.

To better understand the experience of involved parties, we telephone interviewed two pharmacists who were at Main at Locust Pharmacy and a staff person who was at RJ Lee. On average, each interview lasted about 20 minutes. We also invited a union member participant for a telephone interview, but he did not respond to repeated invitations. The interview questions (Appendix B) were created according to the Gap Model (Figure 1).<sup>7</sup> The Gap model theorizes five gaps among customer expectations, management perceptions of expectations, service level specification, service delivery, and external communications, which provide guidance to evaluate the quality of services.

A pharmacist at Main at Locust Pharmacy de-identified forms used in data collection, and a researcher at the University of Iowa College of Pharmacy entered and analyzed data. Personnel at the University of Iowa College of Pharmacy also conducted the telephone interviews. Descriptive statistics like frequency, means, and standard deviations were calculated.

Study endpoints

- Types and quantity of drug therapy problems
- Pharmacists recommendations and physicians' responses
- Patients' expenditures of medical care and prescription drugs
- Patients' quality of life, disability days, and sick days
- The experience of involved parties

### Results

From 750 union workers contacted, 15 participated in the cardiovascular risk management program. These participants already were concerned about their health, and took actions to address their cardiovascular risk like visiting physicians. Eleven of them attended all three sessions of the program, and four did not attend the third session. For these 15 participants, 35 drug-related problems were identified during 6 months of program implementation, with "need for additional therapy" and "dose too low" being the most common problems. To address these drug-related problems, pharmacists made 33 recommendations to physicians, which primarily were medication addition and dose change. Physicians accepted about 55% of pharmacists' recommendations. For the first and second visits, the majority of participants rated their health to be good. A few participants reported to have disability or sick days.

Due to the limited number of participants, meaningful statistical comparisons could not be made to assess the impact of the program. Therefore, the original objective was replaced with the current third objective. That is, to identify obstacles faced by the pharmacists in the program implementation, using telephone interviews with involved parties.

The telephone interviews with two pharmacists and a staff member from RJ Lee, presented an informed view about the program implementation. Such information revealed the barriers faced by pharmacists to provide cardiovascular risk management services for union workers.

According to the interviews, there were three barriers faced by pharmacists to recruit participants or implement the program. First, among the unions, RJ Lee, and Main at Locust Pharmacy, there was lack of consensus about the recruitment or the values of the program. The pharmacy regarded the program as an approach to improve patient outcomes and reduce healthcare costs, but this view was not well perceived by the unions and RJ Lee. After getting a low response rate from eligible workers, the pharmacy put forward the idea to incentivize participants or make the program mandatory. But RJ Lee was unwilling to provide incentives due to potential concerns which could have been raised by healthy union members, and the unions did not want to "force" people to participate.

Second, union workers did not realize the health benefits of the program, and the time requirement to attend all sessions might have been an obstacle for them. When the pharmacy made follow-up phone calls, most at-risk workers did not know why they should participate in the program. Some workers also commented that it was inconvenient for them to participate because of the time needed.

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Third, the recruiting efforts were unilaterally from the pharmacy which was an outside source for the union workers. The unions and RJ Lee could have contributed to the recruitment. For example, they could have been involved in the mailing and follow-up calling, and RJ Lee could have advocated for the program when the response rate was found to be low.

### **Conclusion**

We evaluated the development of a new pharmacist-directed cardiovascular risk management program for union workers, which relied on both group education and medication management services. Using telephone interviews with involved parties, we identified three obstacles faced by pharmacists in the program implementation: lack of consensus about the recruitment, union workers' unawareness of the program's benefits, and limited support from the unions and RJ Lee. Clear agreement among collaborators on both the program's benefits and the specific roles of each collaborator is the key to overcome these barriers in the future.