Opinions of disease management programs among medical directors of managed care organizations

THOMAS ALGOZZINE, ROBERT PANNONE, AND CHRIS M. KOZMA

Abstract: Medical directors of managed care organizations (MCOs) were surveyed about their views on disease management programs in their facilities.

A survey was mailed to 600 MCO medical directors. The survey consisted of 14 Likert-type items related to disease management programs, 4 demographic items, and 1 item related to satisfaction.

Seventy-nine usable surveys were received, for a net response rate of 14%. There were 48 medical directors (61%) with disease management programs at their MCO; 25 (52%) were working independently. A majority (71%) of programs were targeted at asthma. Seventy percent of the 48 medical directors were completely to somewhat satisfied and 13% dissatisfied to some extent with their disease management programs. Satisfaction was significantly related to the MCO’s partnerships for these programs. A majority of medical directors agreed or strongly agreed that disease management programs could improve outcomes and decrease health care costs at their MCO, that an independent consultant could help analyze their MCO’s prescription and medical data, and that they would be willing to accept grants or funds from pharmaceutical companies to initiate and support an independent disease management program at their MCO.

MCO medical directors who responded to a national survey indicated that their organization could benefit from disease management programs, that internal resources might be insufficient to manage these programs, and that their MCO might be willing to contract with external organizations for support.

Index terms: Administrators; Costs; Data collection; Disease management; Managed care systems; Outcomes; Pharmaceutical services.

Am J Health-Syst Pharm. 1998; 55:1029-33
Disease management is one of the most exciting topics in managed care and the pharmaceutical industry. However, there are questions such as: What is disease management? and How will disease management benefit patients and affect medical costs? Disease management has been defined as "the continuous process of identifying and delivering the most efficient combination of resources for the treatment or prevention of disease within selected patient populations." This definition focuses on efficient treatment yet is not specific enough to describe how disease management programs should be organized and implemented. Disease management should involve a multidisciplinary approach to improving outcomes and should take into account all aspects of a disease (medical management, pharmacologic management, and institutional costs). Many programs referred to as disease management programs do not encompass all of these essential components (e.g., medication-switch programs).

Options for organizing and implementing disease management programs include partnering with a pharmaceutical company, contracting with a consultant, and working independently. Several pharmaceutical companies are actively developing and marketing disease management programs. Some managed care organizations (MCOs) are hesitant to form this new bond with a pharmaceutical company, viewing disease management as the newest marketing tool developed by pharmaceutical companies to promote their products. The Zitter group has warned the managed care industry that company-sponsored disease management programs lack credibility. Such statements have prompted many in managed care to carefully consider the liability and value of these programs. However, pharmaceutical companies offer financial support and years of expertise in managed care.

Independent disease management companies are emerging with increasing frequency within the managed care industry. These companies offer a variety of services, including targeting physician and patient populations and undertaking utilization data analysis and intervention programs. Although these companies are aiding in the evolution of managed care and the application of disease management, many have not demonstrated value. The role of disease management companies in health care is thus unknown and needs to be clarified.

For MCOs, working independently has its advantages. The MCO can retain complete control and coordination of a program while ensuring that the organization's goals and objectives are met. Financially, any savings would be returned to the MCO, as would all the costs. The factor that could critically affect the success of a program is whether the MCO has the internal resources and experience to initiate a disease management program.

There are other obstacles to the initiation of disease management programs besides the questions and concerns about their value. Currently, health insurance providers do not have incentives in place to reward providers for successful preventive and health maintenance programs. Compensation of providers is still based mainly on the number of medical procedures performed. Also, 20-30% of an MCO's participants switch health care plans during any given year, which may limit the ability of programs to reach their goals and demonstrate value. Finally, because of the lack of standardization for coding medical procedures and encounters between providers and institutions, as well as the fact that many providers do not code on their own (their staff enters codes on the basis of diagnoses or notes provided), the medical claims data necessary to demonstrate outcomes are often inaccurate, incomplete, or unavailable. Pharmacy claims data, on the other hand, are far more reliable. They are regulated (by the National Council for Prescription Drug Programs) and provide a consistent device for evaluating performance. However, in order to truly assess health-related and financial outcomes, both pharmacy and medical claims data must be analyzed. Unfortunately, MCOs often do not have the capability to analyze their data, and few groups have the training and internal resources necessary to analyze targeted medical and pharmacy data.

Although many questions about disease management remain unanswered and there is much skepticism regarding its value, many MCOs seem willing to experiment with its concepts. This article describes the results of a survey of medical directors of MCOs that was designed to gain these individuals' perceptions of the value of disease management, the resources available to the medical directors, and who should be providing disease management services.

Methods

Survey sample. A database of approximately 2400 MCOs was used. The database was developed from a list of MCOs (1861 names) that was purchased from American Business List, as well as our own business contacts. The master database was searched for persons with “Medical Director” or “V.P. Med” in their title. A list of 764 names of MCO medical directors was obtained through this query. By using a statistics program (SAS version 6.11, SAS Institute Inc., Cary, NC), a random number was assigned to each of the 764 names. The first 600 medical directors whose names were selected in this way were chosen to participate in the survey, in accordance with budget restrictions. A low response rate was anticipated; however, it was expected that a sufficient number of surveys would be returned for interpretable results. The 600 medical directors received a copy of the survey, a cover letter explaining the rationale behind the survey, and a return envelope. Surveys were mailed and collected during a five-month period (October 1995 to February 1996).

Survey design. The survey consisted of 14 Likert-type items (appendix), 4 demographic items, and 1...
item related to satisfaction. Responses to the Likert-type items were chosen from a 5-point scale that ranged from “strongly agree” to “strongly disagree.” The survey was designed to take approximately 10 minutes to complete. All surveys were printed on a computer-generated, bar-encoded (scannable) form for confidentiality and to aid in data entry. A summary of results was sent to any respondent who requested one.

Data analysis. Descriptive statistics were calculated for the responses to the 14 Likert-type items and the demographic data (SAS). The medical directors’ level of satisfaction with existing disease management programs was evaluated through chi-square analysis to determine if there was any association between level of satisfaction and the demographic variables. The a priori level of significance was 0.05.

Results

Seventy-nine usable surveys were received, for a net response rate of 14%. Of the 600 surveys mailed, 26 were excluded because they had an incorrect address (n = 21), were returned uncompleted (n = 4), or were sent twice (n = 1).

Forty-five medical directors (57%) worked in a health plan with ≤100,000 lives, and 37 (47%) were from independent practice association (IPA) model HMOs (Table 1). There were 48 medical directors (61%) with disease management programs at their MCO. A majority (71%) of disease management programs implemented were targeted toward asthma.

Of those medical directors whose MCOs were conducting disease management programs, 25 (52%) were working independently without any assistance from an outside source. When asked to state their level of satisfaction with their existing disease management programs, 70% of the 48 medical directors who responded were completely to somewhat satisfied, while 13% were dissatisfied to some extent. Three of the 11 medical directors who were working with a pharmaceutical company were dissatisfied with their disease management programs. Medical directors’ satisfaction with their MCO’s disease management programs was significantly related to the MCO’s partnerships for these programs (p = 0.033, d.f. = 2, chi-square test). Other relationships between demographic variables and medical directors’ satisfaction were not significant, but there was insufficient power to rule out whether associations were present (type II error).

One of the Likert-type statements (number 14) was determined to be open to misinterpretation because of poor wording and was excluded from analysis. A majority of medical directors agreed or strongly agreed that disease management programs could improve outcomes and decrease health care costs at their MCO, that an independent consultant could help analyze their MCO’s prescription and medical data, and that they would be willing to accept grants or funds from pharmaceutical companies to initiate and support an independent disease management program at their MCO (Table 2). In addition, a majority of medical directors disagreed or strongly disagreed with the statement “I would allow independent clinical consultants to initiate and run my HMO’s disease management programs.” The distribution of responses to statements about resources at the medical directors’ MCO was bimodal. There were no apparent trends in the frequency of responses to the remaining seven statements.

Discussion

The low response rate for this study may be attributed to a second mailing not being conducted and medical directors not being compensated for their time. More survey respondents were from smaller MCOs (≤100,000 lives covered) and 37% had ≤50,000 lives, compared to 14% and 18%, respectively, for the medical directors who responded. The percentage of IPA medical directors (61%) was higher than the 37% of IPA medical directors who were reported by the Health Plan Employer Data and Information Set (HEDIS) for 1996 (Table 1).

Table 1. Demographics of Survey Respondents (n = 79)

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. lives covered</td>
<td></td>
</tr>
<tr>
<td>&lt;50,000</td>
<td>25 (32)</td>
</tr>
<tr>
<td>50,000–100,000</td>
<td>20 (26)</td>
</tr>
<tr>
<td>100,001–250,000</td>
<td>19 (24)</td>
</tr>
<tr>
<td>&gt;250,000</td>
<td>14 (18)</td>
</tr>
<tr>
<td>Organizational model</td>
<td></td>
</tr>
<tr>
<td>Group- or staff-model HMO</td>
<td>9 (12)</td>
</tr>
<tr>
<td>IPA</td>
<td>37 (47)</td>
</tr>
<tr>
<td>PPO</td>
<td>7 (9)</td>
</tr>
<tr>
<td>Mixed or other</td>
<td>25 (32)</td>
</tr>
<tr>
<td>DM program in place</td>
<td>48 (62)</td>
</tr>
<tr>
<td>Partner(s) for DM programs</td>
<td></td>
</tr>
<tr>
<td>None, no assistance from external source</td>
<td>25 (52)</td>
</tr>
<tr>
<td>Independent clinical consultants only</td>
<td>5 (11)</td>
</tr>
<tr>
<td>Pharmaceutical companies only</td>
<td>5 (11)</td>
</tr>
<tr>
<td>No response</td>
<td>4 (8)</td>
</tr>
<tr>
<td>Independent clinical consultants, and sometimes without assistance from external source</td>
<td>3 (6)</td>
</tr>
<tr>
<td>Pharmaceutical companies, and sometimes without assistance from external source</td>
<td>2 (4)</td>
</tr>
<tr>
<td>Independent clinical consultants</td>
<td></td>
</tr>
<tr>
<td>and pharmaceutical companies</td>
<td>2 (4)</td>
</tr>
<tr>
<td>Independent clinical consultants,</td>
<td></td>
</tr>
<tr>
<td>pharmaceutical companies, and</td>
<td>2 (4)</td>
</tr>
<tr>
<td>sometimes without assistance from</td>
<td></td>
</tr>
<tr>
<td>external source</td>
<td></td>
</tr>
<tr>
<td>Disease states targeted by DM programs</td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td>34 (71)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>11 (23)</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>7 (15)</td>
</tr>
<tr>
<td>Depression</td>
<td>5 (10)</td>
</tr>
<tr>
<td>Ulcer disease</td>
<td>5 (10)</td>
</tr>
<tr>
<td>Othera</td>
<td>33 (69)</td>
</tr>
</tbody>
</table>

aOne respondent did not provide information.

bIPA = independent practice association.

cPPO = preferred provider organization.

dOther includes physician–hospital organization, medical service organization, and indemnity plan.

eDM = disease management.

Percentages are based on the 48 respondents who indicated their organization had a DM program in place.

fIncludes diabetes mellitus, migraine, and coronary disease.
### Table 2. Respondents’ Attitudes toward Statements about Disease Management

<table>
<thead>
<tr>
<th>Statement in Brief (No.)</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMO under pressure by health care reform to use disease management (DM) programs (1)</td>
<td>14 (18)</td>
<td>21 (27)</td>
<td>18 (23)</td>
<td>15 (19)</td>
<td>10 (13)</td>
</tr>
<tr>
<td>DM programs would benefit all patients in HMO (2)</td>
<td>10 (13)</td>
<td>32 (41)</td>
<td>8 (10)</td>
<td>25 (32)</td>
<td>3 (4)</td>
</tr>
<tr>
<td>Resources not available internally to support DM programs (3)</td>
<td>6 (8)</td>
<td>17 (22)</td>
<td>20 (26)</td>
<td>31 (40)</td>
<td>3 (4)</td>
</tr>
<tr>
<td>DM programs could improve outcomes and decrease costs (4)</td>
<td>22 (28)</td>
<td>45 (58)</td>
<td>9 (12)</td>
<td>0</td>
<td>2 (3)</td>
</tr>
<tr>
<td>Would allow independent consultants to run DM programs (5)</td>
<td>0</td>
<td>12 (15)</td>
<td>16 (21)</td>
<td>31 (40)</td>
<td>19 (24)</td>
</tr>
<tr>
<td>Not willing to pay for DM programs (6)</td>
<td>7 (9)</td>
<td>9 (12)</td>
<td>22 (28)</td>
<td>32 (41)</td>
<td>8 (10)</td>
</tr>
<tr>
<td>HMO would work with independent consultant that provided educational programs (7)</td>
<td>3 (4)</td>
<td>40 (51)</td>
<td>28 (36)</td>
<td>4 (5)</td>
<td>3 (4)</td>
</tr>
<tr>
<td>Unwilling to contract with consultant if supported by pharmaceutical company (8)</td>
<td>7 (9)</td>
<td>14 (18)</td>
<td>22 (28)</td>
<td>31 (40)</td>
<td>4 (5)</td>
</tr>
<tr>
<td>Independent consultant could help analyze data (9)</td>
<td>4 (5)</td>
<td>52 (67)</td>
<td>14 (18)</td>
<td>7 (9)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Resources available internally to support internal DM program (10)</td>
<td>4 (5)</td>
<td>27 (35)</td>
<td>14 (18)</td>
<td>26 (33)</td>
<td>7 (9)</td>
</tr>
<tr>
<td>Pharmaceutical company’s involvement in DM will benefit HMO (11)</td>
<td>0</td>
<td>18 (23)</td>
<td>41 (53)</td>
<td>14 (18)</td>
<td>5 (6)</td>
</tr>
<tr>
<td>Unwilling to contract with pharmaceutical company for initiation of DM programs (12)</td>
<td>5 (6)</td>
<td>20 (26)</td>
<td>20 (26)</td>
<td>30 (39)</td>
<td>3 (4)</td>
</tr>
<tr>
<td>Willing to accept grants or funds from pharmaceutical companies for independent DM program (13)</td>
<td>16 (21)</td>
<td>35 (45)</td>
<td>17 (22)</td>
<td>6 (8)</td>
<td>4 (5)</td>
</tr>
</tbody>
</table>

*Full statements are listed in the appendix.

One medical director did not respond to the statement.

---

Although the concept of disease management and the development of disease management programs continue to evolve, it appears that medical directors perceive disease management as beneficial and have embraced its theorized value to outcomes and health care costs. Whether these medical directors have available the financial resources and personnel required to manage these programs on their own is still unclear; however, medical directors of MCOs appear to be willing to contract with external organizations. Pharmacists may develop a role as the educators of patients and providers who are involved in disease management programs, in addition to analyzing data and facilitating disease management dissemination within HMOs or other MCOs.

The results also suggest that many medical directors are not willing to let an external organization initiate and operate their disease management programs—they want to remain the decision-makers for any programs conducted in their organization.

Although our results suggest that medical directors working with a pharmaceutical company on disease management programs were less satisfied than other medical directors, this should be interpreted with caution. The responses indicated that most medical directors were willing to accept funding from the pharmaceutical industry. This may suggest that the managed care sector is willing to use the resources a pharmaceutical company can provide but does not want its disease management programs to be provided by the pharmaceutical industry. Because of the low response rate and the low number of respondents who had implemented disease management programs (n = 48), these data should be used only to help predict trends in managed care.

Our study is not without limitations. The poor response rate raises the possibility of nonresponse bias. Also, the questionnaire itself was not validated; items in it could have been interpreted in ways we did not predict.

### Conclusion

MCO medical directors who responded to a national survey indicated that their MCO could benefit from disease management programs, that internal resources might be insufficient to manage these programs, and that their MCO might be willing to contract with external organizations for support.
References

Appendix—Statements in the original survey
1. I believe that my HMO is being pressured by health care reform to incorporate disease management programs into our treatment strategies.
2. Disease management programs would have some benefit for every patient in my HMO.
3. If a disease management program were to be implemented, I would not have the personnel, time, or financial resources available to provide the necessary educational and clinical services.
4. Disease management programs could improve outcomes and decrease health care costs in my HMO.
5. I would allow independent clinical consultants to initiate and run my HMO’s disease management programs.
6. I am not willing to pay for disease management programs.
7. My HMO would work with an independent consultant provided patient and physician education programs.
8. I am unwilling to contract with an outside consultant that is supported by a pharmaceutical company.
9. An independent consultant could help analyze my HMO’s prescription and medical data.
10. My HMO has the clinical staff and time necessary to provide the educational programs and support required for the success of an internal disease management program.
11. A pharmaceutical company’s involvement in disease management will benefit my HMO.
12. I would be unwilling to contract with a pharmaceutical company for the initiation of disease management programs at my HMO.
13. I would be willing to accept grants or funds from pharmaceutical companies in order to initiate and support an independent disease management program at my HMO.
14. A pharmaceutical company’s involvement would negatively benefit patient and physician education programs.