Introduction
Chronic disease management (CDM) is at the fore of health care issues and health care planning primarily because of the complexity and co-morbidity of chronic illness. In an effort to more fully understand physicians’ perspectives on CDM, 7980 physicians and stakeholders were sent a questionnaire in the MSP Physician’s Newsletter (Issue 1 Volume 25 Summer 2001).

By September 14 2001, 207 responses were submitted to the Utilization Management Branch of MSP – a response rate of 2.6 per cent. Included in the survey were questions on the usefulness of CDM tools, diseases considered to be the best candidates for CDM strategies, respondent involvement in CDM initiatives and/or strategies, barriers to providing CDM, and the interest of respondent participation in CDM initiatives (see attached survey).

Response
Given that patient care almost always originates in the general practitioner’s office, it follows that the majority of respondents (70%) were general practitioners. The remaining 30% of responses represent twenty-one different specialties. The second highest rate of return was from internal medicine specialists (5%), followed by pediatricians (3.8%).

Use of Chronic Disease Management “Tools”
A significant percentage of respondents (82%) agreed that CDM tools would be helpful to them in their practices. Only 24% of respondents are currently involved in chronic disease initiatives or programs. Comments suggest that CDM tools can act as a safeguard or benchmark for physicians to assess whether their current approach to care is within an acceptable norm.

Prioritization of Chronic Diseases
Physicians identified diabetes mellitus (74%) as the top candidate for chronic disease management followed by hypertension (49%) and congestive heart failure (47%). One in four respondents included an “other” disease that they felt was more important to monitor. Arthritis (7%) and chronic pain (4%) were the chronic diseases most frequently mentioned under “other”. Table 1 ranks chronic diseases by respondent choice.
Barriers to Chronic Disease Management

Respondents were asked what barriers they thought might hamper their ability to provide chronic disease management. The most frequently mentioned barriers included time, complexity, workload, remuneration, and human resources. The notion of time as a barrier received an overwhelming response from physicians. Time, in itself, is a multi-faceted concept that includes the time required to research a disease prior to the patient’s visit, as well as the time to examine, educate and follow-up with the patient. Lack of time to fulfill the huge requirements in order to be as effective and thorough as they would like was mentioned repeatedly.

The complex nature of chronic illness was also cited as a barrier to CDM. A strong relationship exists between disease complexity and physician time. Medication management and polypharmacy add to the intricacies of CDM. The increased workload required for patient management also adds to an already daunting amount of paper work which, in turn, impacts time for other patients and themselves.

Respondents identified patient compliance as an integral aspect of CDM. Typically, as the complexity of an illness increases, patient compliance decreases. The result is a challenging patient and high maintenance disease management.

Many chronic diseases are associated with other illnesses, and this comorbidity lends itself to fragmentation of care due to the lack of time to properly address each health issue. This can result in multiple patient visits. If a physician’s patient load is high, patients may turn to walk-in clinics for quick, episodic care rather than seeking comprehensive care from their regular caregiver.

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**Table 1: Best “Candidate” Diseases for Chronic Disease Management**

<table>
<thead>
<tr>
<th>DISEASE</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
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</thead>
<tbody>
<tr>
<td>1. Diabetes Mellitus</td>
<td>153</td>
<td>74%</td>
</tr>
<tr>
<td>2. Hypertension</td>
<td>101</td>
<td>49%</td>
</tr>
<tr>
<td>3. Congestive heart failure</td>
<td>97</td>
<td>47%</td>
</tr>
<tr>
<td>4. Asthma</td>
<td>88</td>
<td>43%</td>
</tr>
<tr>
<td>5. Chronic lung diseases</td>
<td>72</td>
<td>35%</td>
</tr>
<tr>
<td>6. Chronic depression</td>
<td>61</td>
<td>30%</td>
</tr>
<tr>
<td>7. Chronic renal failure</td>
<td>59</td>
<td>29%</td>
</tr>
<tr>
<td>8. End stage liver disease</td>
<td>31</td>
<td>15%</td>
</tr>
<tr>
<td>9. Other – Arthritis</td>
<td>15</td>
<td>7%</td>
</tr>
<tr>
<td>[includes arthritis(7), chronic inflammatory arthritis (3) and osteoarthritis (5)]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Other – Chronic pain</td>
<td>8</td>
<td>4%</td>
</tr>
</tbody>
</table>

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The necessary time to explain treatment goals and expectations. It is very time consuming to teach patients enough to make them “co-managers”.

Respondent #112

Co-morbidity; multiple chronic diseases; time and lack of skilled assistance.

Respondent #204

Biggest barrier is non-compliance especially with diabetics. I can offer lots of management/support but not if they are pretending that “all is okay”.

Respondent #151

Fragmentation of care—many patients have more than one chronic problem.

Respondent #49
A lack of funding was also mentioned as a fundamental barrier. The current fee-for-service payment mechanism does not include fees for prolonged visits necessary to properly manage patients with chronic and/or multiple diseases.

Respondents suggested better cooperation between specialists, general practitioners and patients, as well as more opportunity for multi-disciplinary teams is required if chronic diseases are to be properly managed. As one respondent inferred, a new paradigm of management is needed with less bureaucratic barriers.

A number of respondents mentioned the lack of focused educational material that is reliable, applicable and concise. Some respondents recognized guidelines as a useful tool and frequently refer to these materials in their practice.

Respondents also noted that physicians are given very little training in chronic disease management and that the medical school curriculum needs to be updated to address this void.

**Chronic Disease Management – Areas of Interest**

The final question in the survey explored potential areas of interest to physicians in the development CDM initiatives. Respondents indicated that they are most interested in reviewing and assessing guidelines and protocols or tools (37%), followed by sharing CDM with peers (32%). Table 2 lists responses for the five suggested areas for CDM participation.

**Table 2: Chronic Disease Management – Areas of Interest**

<table>
<thead>
<tr>
<th>AREAS FOR CDM PARTICIPATION</th>
<th>FREQUENCY</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review &amp; assess guidelines &amp; protocols or tools</td>
<td>76</td>
<td>37%</td>
</tr>
<tr>
<td>Sharing CDM with peers</td>
<td>65</td>
<td>32%</td>
</tr>
<tr>
<td>Participate in research on current practices</td>
<td>60</td>
<td>29%</td>
</tr>
<tr>
<td>Identify useful information systems</td>
<td>51</td>
<td>25%</td>
</tr>
<tr>
<td>Develop and test outcome measures</td>
<td>46</td>
<td>22%</td>
</tr>
</tbody>
</table>

Finally, respondents noted that chronic disease management can be discouraging for caregivers, patients and family members, alike. It takes time to talk to patients, educate them, and provide adequate follow-up. Physician interest is there; the road to change is the challenge.

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Chronic Disease Management Questionnaire

1) Do you think chronic disease management tools would be helpful to you in your practice?

[ ] Yes  [ ] No  Why or why not? ______________________________________

2) Based upon your experience, which of the following diseases are best candidates for chronic disease management strategies? (Please ✔ your first three choices only)

[ ] Chronic renal failure  [ ] Congestive heart failure
[ ] Asthma  [ ] Hypertension
[ ] Chronic lung diseases  [ ] Chronic depression
[ ] Diabetes mellitus  [ ] End stage liver disease
[ ] Other ________________________________________________

3) Are you currently involved in any chronic disease initiative or program?

[ ] Yes  [ ] No  If yes, please describe: ______________________________________

4) What do you think are the barriers to providing chronic disease management?

________________________________________________________________________

________________________________________________________________________

5) If you are interested in participating in the development of chronic disease management initiatives, please indicate your areas of interest

[ ] Sharing chronic disease management with peers
[ ] Participating in research on current practice
[ ] Reviewing and assessing guidelines, protocols or tools
[ ] Identifying useful information systems
[ ] Developing and testing outcome measures
[ ] Other ______________________________________

NAME

TELEPHONE NUMBER

SPECIALTY

FAX

ADDITIONAL COMMENTS: