Current status of diabetes self management education (DSME) in Maryland

Rationale

Diabetes is a growing concern in the United States, including Maryland. Managing diabetes appropriately can help prevent complications such as cardiovascular disease, kidney disease and blindness, and ultimately improve long term health outcomes, as well as save healthcare costs.

Optimal diabetes management relies heavily on patient self management. Therefore, it is important to educate diabetes patients about their disease and the benefits of maintaining healthy glucose levels, as well as addressing other risk factors such as obesity or associated conditions such as high blood pressure and high cholesterol[1].

Because of the complexities of diabetes management, educating patients using a structured curriculum and by certified health professionals provides one of the most effective means for achieving patient compliance and behavior change. Due to the need for a uniform framework that would allow the tracking of outcomes and quantification of progress, three national certification programs have been established:

- American Diabetes Association (40 programs in MD)
- American Association of Diabetes Educators (8 programs in MD)
- Indian Health Services

These certification programs constitute an effort to provide common criteria for recognition and ensure quality, as well as create a framework under which these programs can be reimbursed by CMS and potentially private payers as well.

Goals

This project assessed the current status of DSME in Maryland. It focused on ADA and AADE recognized programs. The goal was to learn more about the existing programs and determine whether additional support was needed, and what type of support would be most beneficial.

Methods

A survey was deployed to assess the current status and needs of these programs. This survey addressed the barriers around patient access and compliance with these educational programs, and explored the best ways to overcome potential existing barriers. Some of the potential barriers explored included:

- Patients' awareness about DSME programs
- Patients' beliefs about the value of DSME programs
- Patients' compliance (e.g. drop out rates) with the DSME programs
- Patients' time commitment to attend a DSME program
- DSME programs' interference with the work schedule of patients

[1] Clark M. Diabetes self-management education: a review of published studies. Prim Care Diabetes. 2008 Sep;2(3):113-20.

- Perceived suboptimal quality of the DSME programs
- Difficulty in securing reimbursement (high co-pays)
- High costs of diabetes treatment
- Demand from patients higher than the programs' current capacity
- Difficulty in finding/ attracting enough certified diabetes educators

This survey was initially deployed to several programs as a pilot, followed by a second more comprehensive wave that reached the rest of the programs in Maryland. The goal was to deploy the survey in August 2012 and complete the data analysis and recommendations by October 30, 2012.

Results

36 program coordinators were contacted via email, out of which 20 have responded to the survey.

Type of program	Number contacted	Number of respondents
ADA	29	15
AADE	7	5
Total	36	20

The tables below show the total patient capacity per quarter and current utilization. The current total capacity and corresponding utilization are relatively low, given the large number of patients with diabetes in Maryland (the prevalence of type 2 diabetes in Maryland is above 9%[2]).

Indicators	ADA	AADE	Total
Number of programs	15	6	20
Total capacity per quarter	5350	1485	5575
Utilization per quarter	2881	551	2982
Percentage utilization	54%	37%	53%

Indicators	ADA	AADE	Total
Average capacity per program per quarter	357	248	279
Min capacity per program	40	10	10
Max capacity per program	1260	1260	1260

Indicators	ADA	AADE	Total
Average utilization per program per quarter	192	92	149
Min utilization per program	10	6	6
Max utilization per program	450	450	450

[2] http://www.statehealthfacts.org/profileind.jsp?ind=70&cat=2&rgn=22

The responding programs have the following characteristics:

Program characteristic	Average	Units
The average length of a class/ program	7	hours
How often are classes offered?	2.5	times per month
The average length of a class session	2	hours
Number of patients per class on average	7	patients
# certified diabetes educators per program	2.4	educators

All of the responding programs have secured partial public or private reimbursement for their services:

Reimbursement type	Number of programs
Medicare	16
Medicaid	15
Private payers	16
Total	20

The barriers perceived to patient access and compliance are listed in Fig 1, with the most important having a higher rating (response scale from 1=not important to 5=very important).

Some of the potential strategies explored are shown in Fig.2. The support perceived as being the most important had a higher rating (response scale from 1=not important to 5 very important).

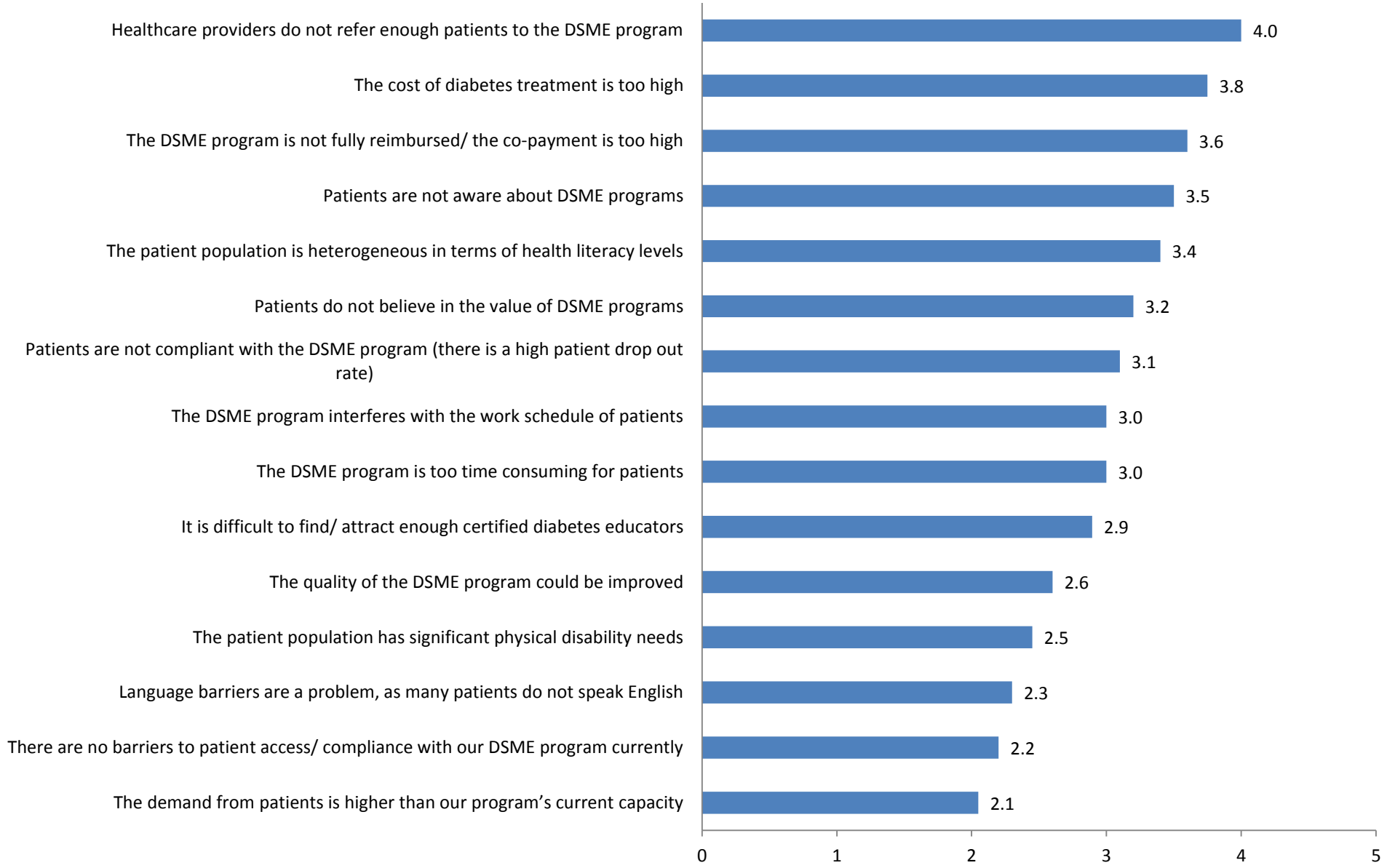
The fact that providers and patients are not aware of DSME programs stands out as a potential area of intervention. Also frequently mentioned as important is the need for reimbursement support.

The table below presents several strategies for intervention, tiered based on impact, implementation hurdles, and potential cost. Some of the potential interventions, such as awareness campaigns, could be deployed in the near future and a relatively low cost. Other types of intervention, such as developing additional patient capacity by establishing new DSME programs at the local health departments would require more time and more significant resources.

Conclusion

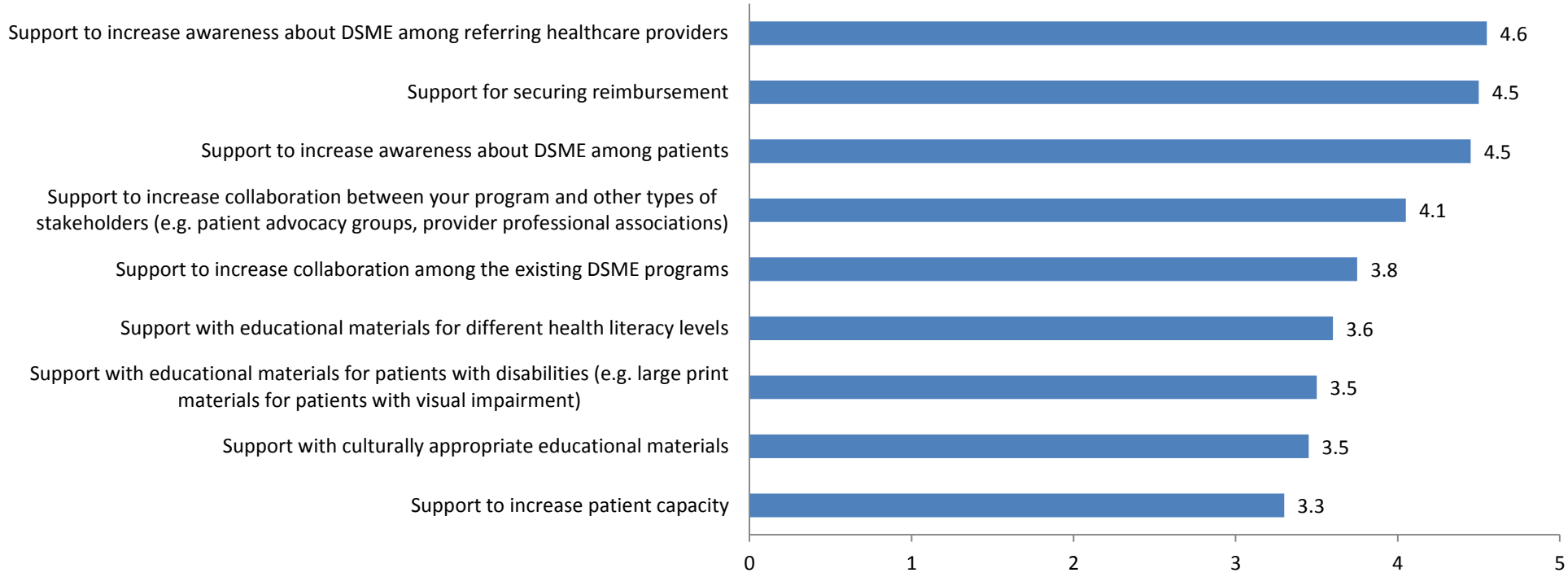
Diabetes is a serious public health problem in Maryland. As with many other chronic diseases, when patients are actively involved in the management of their disease, health outcomes can improve significantly. Diabetes self management education programs are proven methods to increase patient awareness and compliance. This project lays the groundwork for developing strategies to improve diabetes self-management education in Maryland.

Fig. 1. Perceived barriers to patient access and compliance with DSME*



*Average of responses (on a scale from 1 to 5 where 1= not important and 5= very important).

Fig. 2. Support needed to improve patient access and compliance with DSME**



**Averages of responses (on a scale from 1 to 5 where 1= not important and 5= very important).

For any questions in regards to the report, please contact Adelline Ntatin at 410-767-2623 or adelline.ntatin@maryland.gov.