

1-21-2008

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## Recommended Citation

Antell, Nicholas; Cangiano, Michelle; Deane, Jessica; Lin, Chris; Martin, Rebecca; Schlein, Sarah; Zinke, Richard; Farnham, Pam; and Hatin, Kevin, "Enhancing Attendance of the Greater Burlington YMCA Diabetes Fitness Program" (2008). *Public Health Projects, 2008-present*. Book 2.

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# Enhancing Attendance of the Greater Burlington YMCA Diabetes Fitness Program

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## INTRODUCTION

Since 1999, the Burlington YMCA has offered a **free** aerobics class to members of the community with diabetes. Additionally, the class regularly monitors participants' health status. These data support the well-established benefit of exercise in diabetes.

### About the Program

- Began in 1999
- Free
- Physician's referral required
- 2h aerobics, twice per week:  
1h land + 1h water

### Medical Monitoring

- hemoglobin A1C
- blood pressure
- resting pulse rate (before and after each twelve week session)

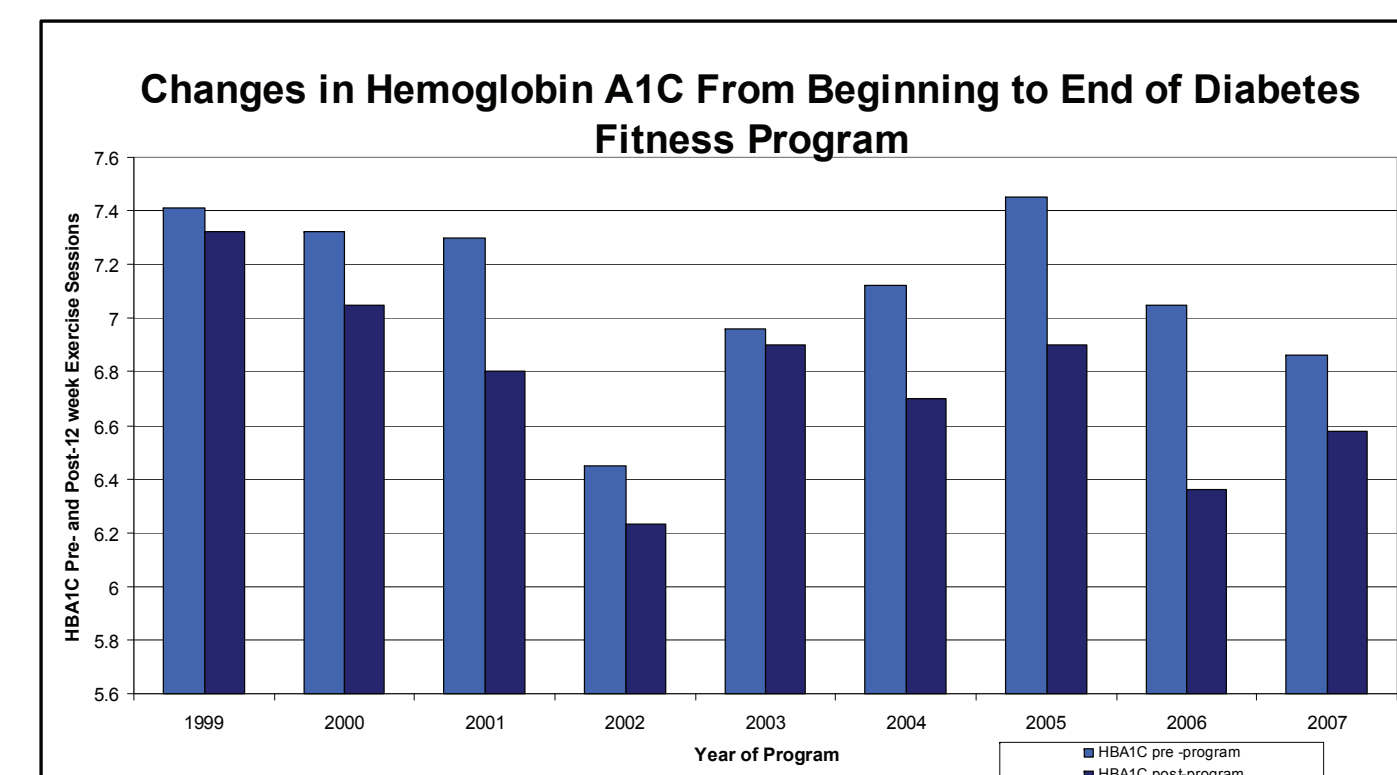


Figure 1: Decreasing HbA1C levels of participants, measured before and after each 12 week session

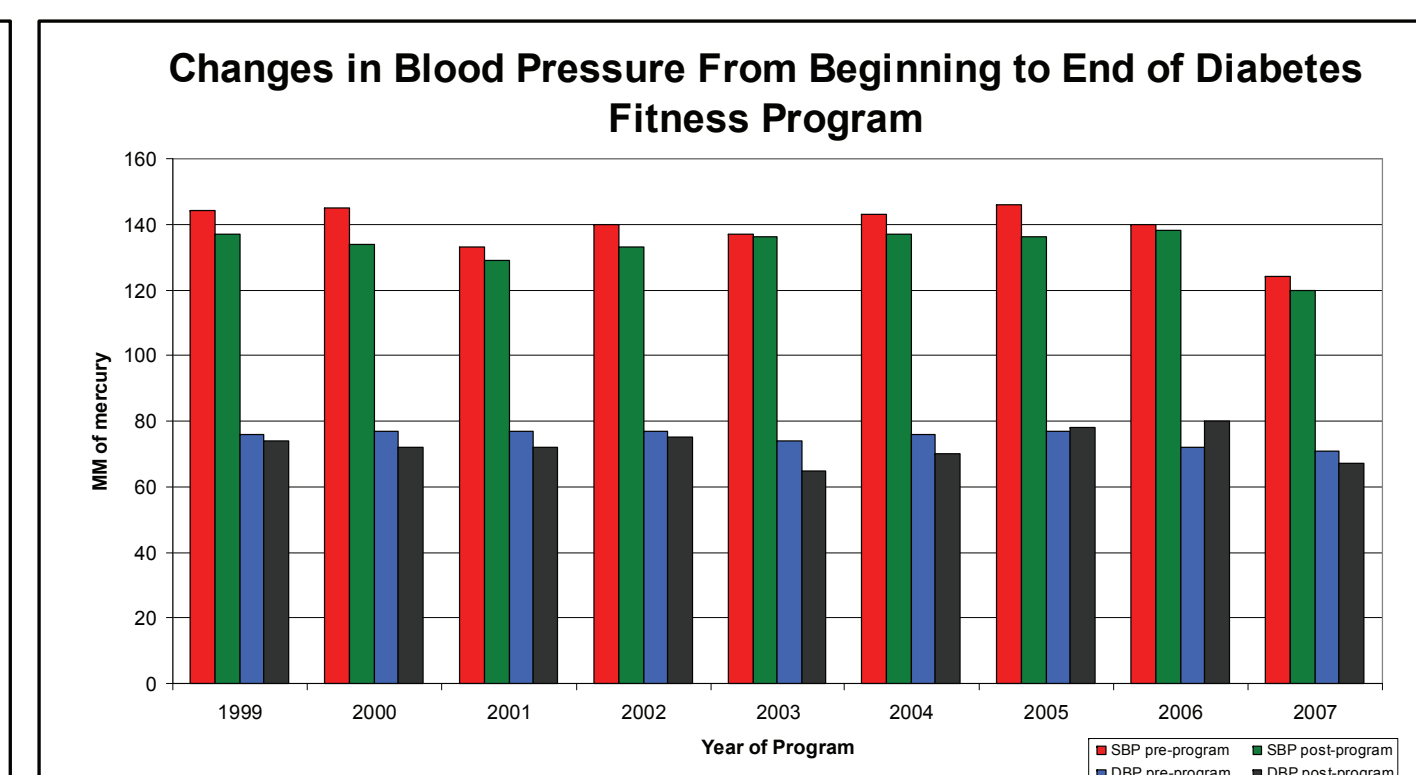


Figure 2: Decreasing blood pressure of the participants, measured before and after each 12 week session

## OBJECTIVE

The **enrollment and retention rates** in the YMCA Diabetes Fitness Program have been disappointingly low.

By surveying local primary care physicians, current and past Y.M.C.A. program participants, and non-participating diabetes patients, we hope to explore reasons behind this trend.

From our data we will formulate **recommendations**, from which the YMCA can better serve its population.

Consequently, we hope the full potential of this program may be fully realized.



*"I would need transportation, it is too far to walk."*

*"I am on oxygen and don't know if I can participate."*

*~Diabetics on barriers to the program.*

## METHODS

We surveyed 3 specific populations of interest:

- **Physicians**
  - Online Survey Software used to gather data.
- **Current and Past Participants**
  - A survey was mailed out to all past and current participants
- **Potential Participants**
  - Survey's were made available at the Community Health Center of Burlington and VT Regional Diabetes Center.

## REFERENCES

1. L.M. Bell, et al. Exercise reduces insulin resistance in obese children J. Clin. Endocrinol. Metab. 92:4230 2007.
2. Oh, K.S, et al. Swim training improves leptin receptor deficiency-induced obesity and lipid disorder by activating uncoupling proteins. Exp and molecular med. 35:3:395 2007.
3. Snoek, F.J. Breaking the barriers to optimal glycaemic control-what physicians need to know from patients' perspectives. Int J Clin Pract Suppl. 129:80 2002.

## ABSTRACT



*"I keep from taking any medication by doing water aerobics everyday. Doctors who treat diabetics should insist that their patients join this program."*

*~A current participant*

**Background:** Participants of the YMCA Diabetes Fitness Program have benefited in their health and well being since 1999. Despite these benefits, however, enrollment and retention rates remain low.

**Objective and Methods:** We explored the barriers to participation and retention by surveying current and past program participants, non-participating diabetic patients, and healthcare providers in the community.

**Results:** Major barriers to participation included parking/ transportation, time of day, and location, as well as lack of knowledge about the program. Physician's also cited lack of motivation as a major barrier to exercise.

**Conclusions:** We formulated a series of recommendations to assist the YMCA in overcoming participation/ retention barriers. Our results highlighted the importance of adequate communication between the YMCA Diabetes Fitness Program and the medical community.



*"This program needs an instructor who knows what kind of a program is necessary and will stay with it. Lately it has been haphazard. For the last weeks we have had an instructor whose training is suspect. The intensity is not hard enough."*

*~ A current participant*

## RECOMMENDATIONS

### Increase Awareness

- Continue ads in Burlington Free Press
- Include all pertinent information: no cost, transportation information, and physical accommodations possible
- Add program information to Seasonal YMCA Publication and Website

### Increase awareness within the medical community

- Advertise to doctors on regular basis
- Spread information at physician gatherings/ meetings (Grand Rounds)
- Supply quick info handouts to physicians (Rx pads)

### Increase Accessibility

- Weekend option; add additional class
- Provide transportation: Bus from parking lot of CHC/ Diabetes Center
- Provide free parking
- Provide referral sheets that can be faxed directly to and from physicians' offices to relieve pts of this burden

### Empower the individual

- Physicians must not assume lack of motivation on pt's part
- Ask directed questions
- Create personalized plan around individual's barriers

### Support the Individual

- Ensure dependable, consistent, enthusiastic instructional staff.
- Educate instructors on diabetes/ exercise benefits
- Personalize the program (intensity level options, additional incentives)

### Encourage enthusiasm through advertisements

- Establish a visible link on web site
- Create vibrant advertisement in seasonal YMCA publication
- Ensure visibility to elder populations

## LESSONS LEARNED



*"[I would return if] there were better communication between doctors and the program."*

*"I don't believe the people in charge [of the program] really care if the program is successful."*

*~Two past participants*

1. The class works: the average hemoglobin A1C level for the participants has **decreased every year** since 1999 as a result of the YMCA Diabetes Fitness Program.

2. Roughly **43%** of surveyed practitioners had never heard of the YMCA Diabetes Fitness class. This highlights the importance of **improved communication between the program directors and healthcare providers** in the community.

3. It is essential that providers **not let personal bias or assumptions interfere** with recommending the fitness class to their diabetic patients.



*"[I would refer patients], but I need to know more about the program so I can select and encourage patients appropriately."*

*~A Local Healthcare Provider*

## RESULTS

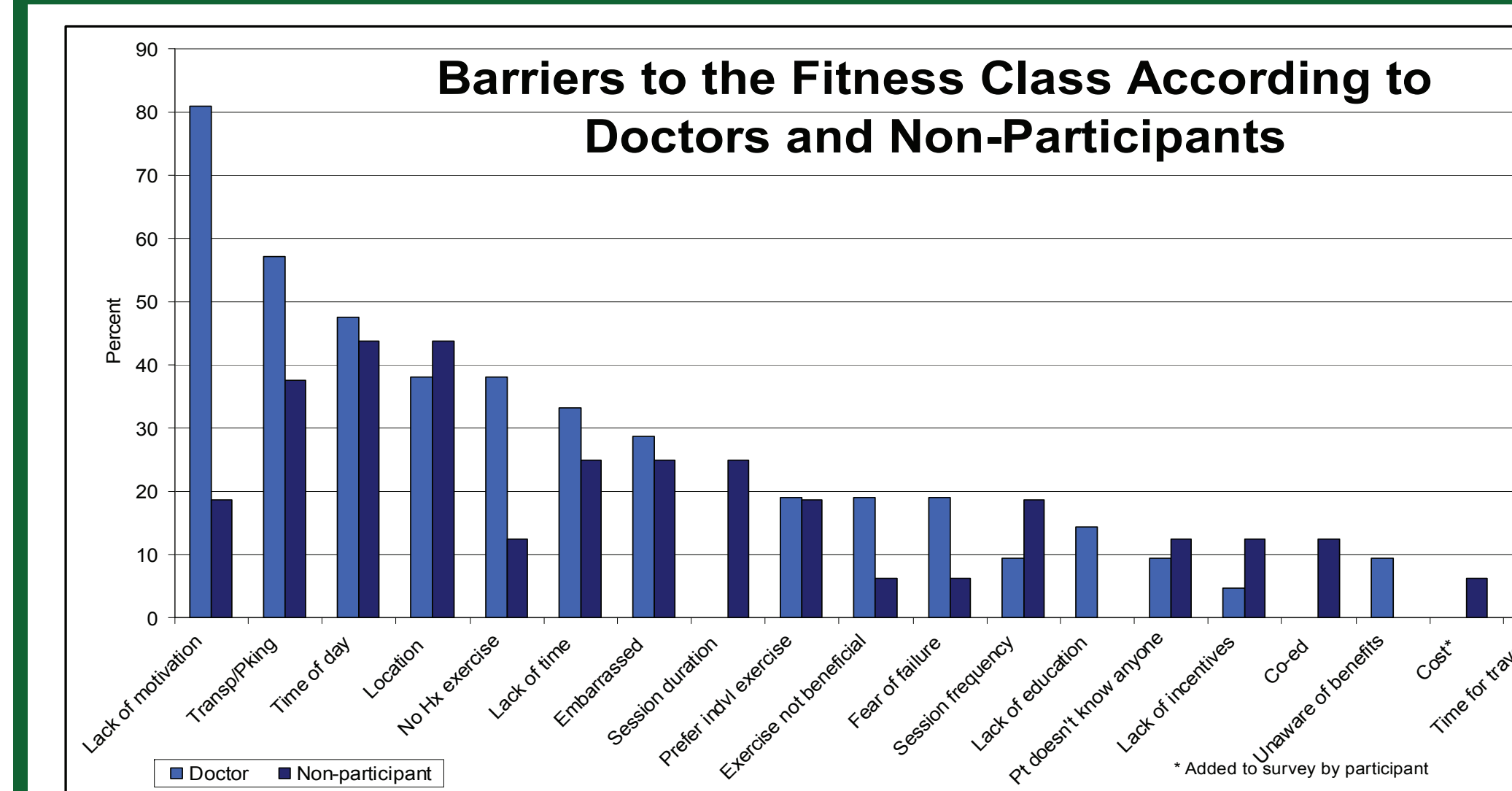


Figure 3: Barriers to joining exercise fitness programs. Physicians: **lack of motivation** followed by transportation, time of day, and location. Diabetic patients: time of day, location, transportation/ parking.

Only 57% of physicians had heard of the class; however, 100% of physicians stated that **they will refer patients to the program now that they are aware.**

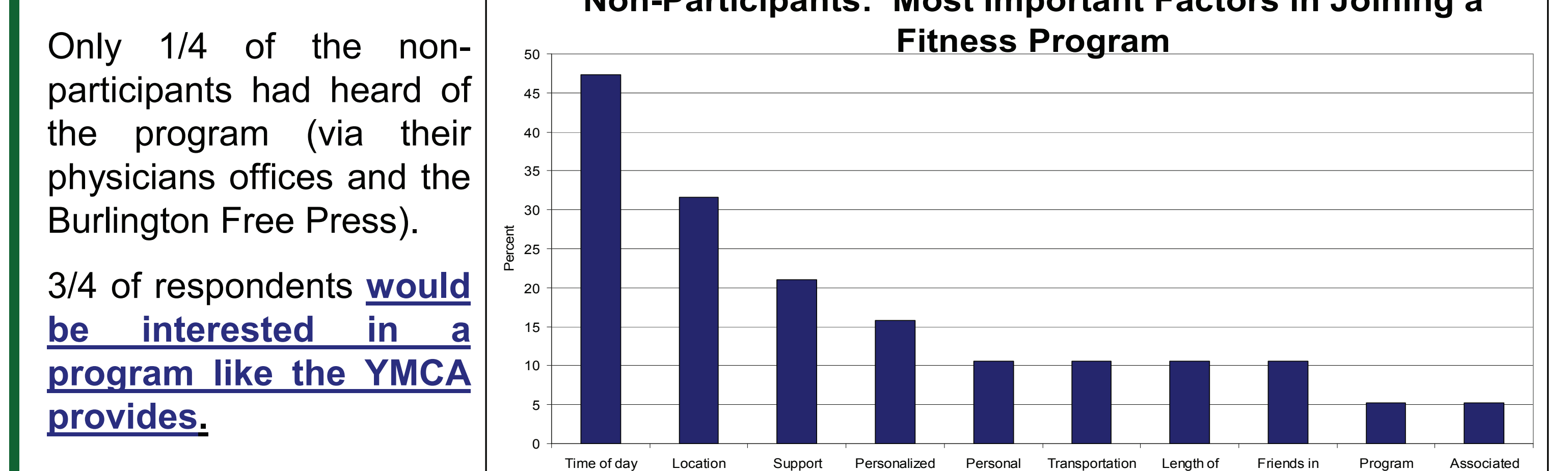


Figure 4: The most important factors in joining a fitness program are time of day, location, support groups, and a personalized program.

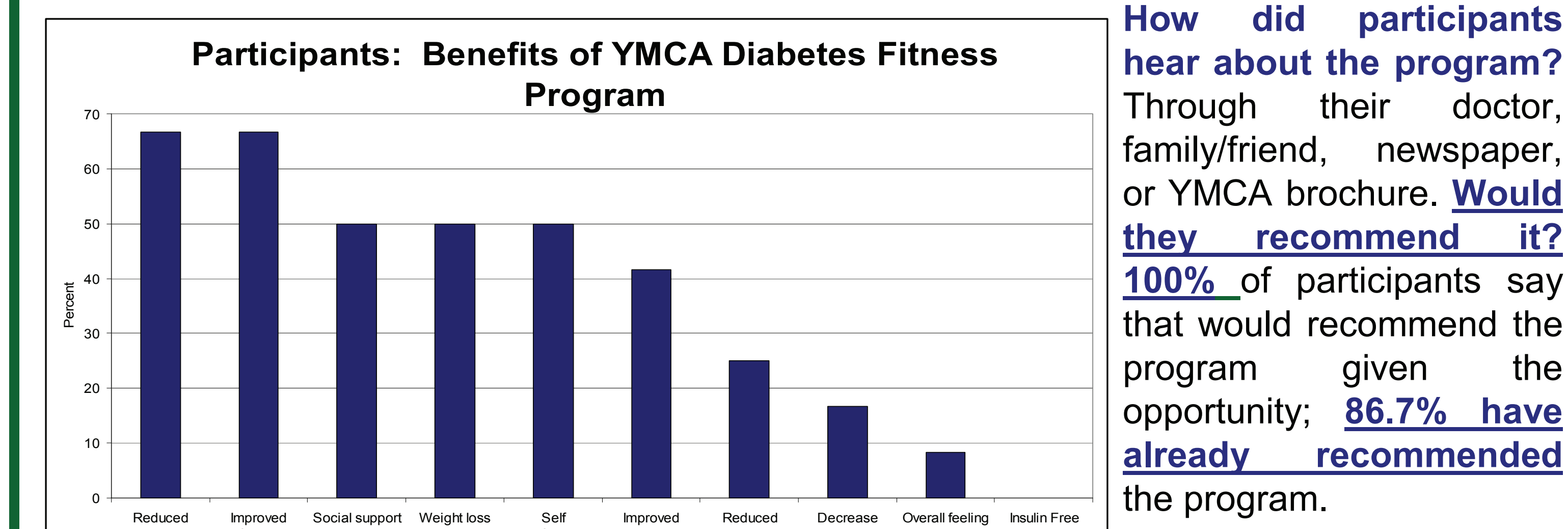


Figure 5: According to class participants, benefits of the program included reduced HbA1c levels, improved fitness, social support, weight loss, and self confidence.

**How did participants hear about the program?** Through their doctor, family/friend, newspaper, or YMCA brochure. **Would they recommend it?** **100%** of participants say that would recommend the program given the opportunity; **86.7%** have **already recommended** the program.

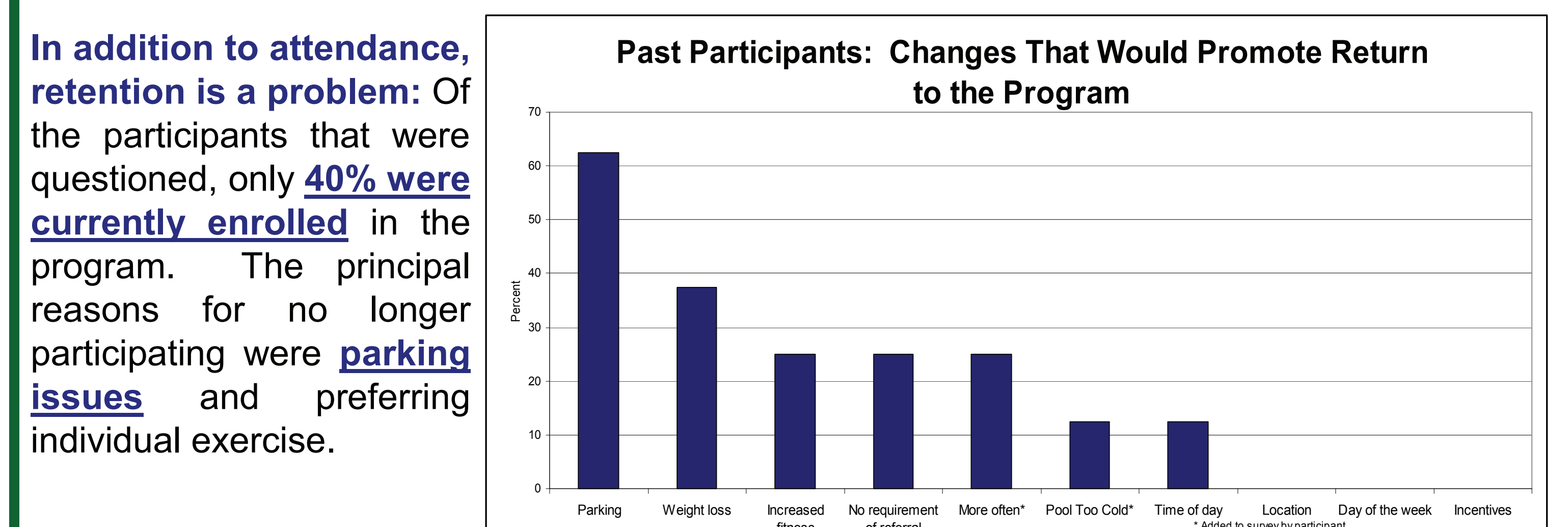


Figure 6: Past participants cited that parking, weight loss, increased fitness level, no required referral, and more frequent classes would be incentives to return to the program. Location was not a cited barrier for past participants.

## SPECIAL THANKS

We would like to thank the Greater Burlington YMCA, University of Vermont College of Medicine Office of Medical Education, UVM Med Photo, Community Health Center of Burlington, VT Regional Diabetes Center, Jan Carney, Thomas Delaney, Pam Farnham, and Kevin Hatin for all their work and cooperation which allowed this project to be completed.