# "Diabetic Group Medical Visits" (DGMVs); An Approach To Improving Diabetes Clinical Markers, Patients' Compliance and Physicians' Satisfaction

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**Abstract**

Objectives
The purpose of this project is to explore diabetic group education, evaluate its effectiveness and assess the "Diabetic Group Medical Visit" (DGMVs) pilot program that was done at various AltaMed clinics around LA and Orange County beginning of this year.

Research Design and Method
A literature review was conducted through Google Scholar and PubMed. Key words were used to search for journal articles and reports published in the past fifteen years that focus on group diabetic education and management. To assess the pilot program, pre-post lab variables of twenty six graduates were analyzed using IBM SPSS statistical analysis to look for change and statistical significance. Surveys were distributed to both patients and physicians in order to assess their overall perspectives about the program.

Results
Quantitative analysis of the data demonstrated significant decrease in systolic blood pressure (9 points), cholesterol, LDL (20.9 points) and hemoglobin A1c (0.94 points). In addition, qualitative analysis demonstrated DGMVs pilot program improve patients' general health, and positively impact disease management.

Conclusion
The current available evidence prefers group visits and recommends its incorporation in diabetic management. DGMVs pilot program increases patients' knowledge on diabetes, induces behavior change and improves most clinical outcome. This program should continue with implementation of better guidelines.

**Key Words:** Diabetes Mellitus type 2, Diabetic Group Visit, Group Medical visit, Chronic Disease Management, Health education, Diabetes prevalence, CHD risk factors, patient and physician satisfaction, Framingham Heart Study, ATP3 (Adult Treatment Panel 3), Diabetes Report.

## Introduction

Diabetes Mellitus (DM) is a common, slow progressing, but life threatening disease. The number of cases that have been diagnosed every year is increasing rapidly. It is estimated that about 29.1 million Americans or 9.3% of the population have diabetes[1]. While 12.3% of adults older than age 20 suffer from this disease[1]. Those numbers reflect patients who were clinically diagnosed and those who were not. Among minority groups: 12.8% Hispanics and 13.2% non-Hispanic blacks suffer from diabetes[2]. Because the disease does not initially cause significant uncontrolled symptoms, patients often go a long time without a visit to their healthcare providers. 8.1 million Americans were undiagnosed in 2012 according to data from the National Diabetes Statistics Report[1].

Diabetes is considered a strong risk factor for Coronary Heart Disease (CHD) and was listed among the top 10 causes of death in the US in 2010[2]. In fact, diabetes is an established CHD risk equivalent. Patients with DM may be at high risk for cardiac events such as myocardial infarction (MI) even though they may not experience bothersome symptoms[3] . Furthermore, the Framingham Heart Study scoring system suggests that the general patients with diabetes have more than 20% risk for MI or coronary death within a 10-year period[4]. For these reasons, this disease is already and will continue to be a topic for discussion.

Multiple factors play a role in this intriguing disease process. It affects multiple organ systems and requires a combination of methods for its management. Because of these factors, scientific research studies will continue be the foundation for disease management. As more patients are being diagnosed with DM, providers' shortage will become an increasingly serious issue. Although increasing the number of providers that care for these patients is a great idea that should not be the only method use to address this issue. It is important to examine what providers

can do now to help as many patients while still providing high quality care. Also of importance is the need to address the barrier that limits patients' access to care and provide solutions so that patients can be seen, educated, and properly managed.

An approach that has challenged the usual manner diabetic education has been delivered in the U.S and Canada is the "Diabetes Group Medical Visit" (DGMV). This program received a lot of attention because of its probable beneficial results. According to results from multiple studies [5-10], clinical outcome could be improved by using Group Medical Visits (GMVs). GMVs could also help address providers' shortage, increase in patients' population and possibly decrease educational cost. The benefits to patients are many. For example, they are able to get more out of their visits and receive proper education because providers and educators are not rushing to see the next patient. The program basically eliminates the waiting room process, enriches patients with a support system, and gives patients the motivation they need to make lasting lifestyle changes. Not only is this approach beneficial to patients, it is also beneficial to providers. One of the potential benefits to providers is that they are able to see more patients without a corresponding decrease in the high standard of care they provide. In general, this program has shown some promises: patients who completed this program are found to be more successful at managing their diseases and providers find this program effective and rewarding[11].

AltaMed has been conducting Diabetes Group Medical Visits as part of their health education programs. The DGMVs program is a three-month program led by providers with support from health education staff. The first session of the program kicked-off on February 2014 and ended on April 2014. The objectives of this program were to increase patients' knowledge on diabetes, induce behavior changes and ultimately lead to improved clinical

outcome (A1c, Blood Pressure, BMI). Additionally, the program aimed to be financially sustainable and replicable across all AltaMed sites. The main purpose of this report is to assess the success of the pilot program by examining if the program has met its core objectives.

## Background

In the late 1990s, the notion that group visit can be an innovative approach for diabetic education rapidly became a topic of discussion. The impetus was because diabetes became a pressing health concern and health care providers began to feel its increasing economic burdens. Naturally, healthcare providers realized that the traditional method of delivering diabetic education is unsustainable from a fiscal standpoint[7]. Thus, cost played a significant role in influencing the move from individual toward group diabetic education program[7]. Moreover, the Balance Budget Act of 1997 further supported the movement to group based education by providing financial incentives to encourage diabetic educators to implement a group education program[7]. The Health Care Finance Administration (HCFA), which is currently known as Centers for Medicare & Medicaid Services, provides uniform reimbursement for group diabetic education consisted of 2-20 patients or an average of 10 patients[7]. Notwithstanding this influx of financial support for group diabetic education, there has been limited research performed to evaluate this new approach whose key assumption is that group visit is a more effective way for health organization to manage chronic diseases such as diabetes.

To evaluate this approach, Sadur et. al performed an original research aiming to "evaluate the effectiveness of a cluster visit model"[12]. According to the report, a strategic outpatient diabetic care management program was provided to a group of poorly diabetic control patients in northern California. This randomized control trial was led by a multidisciplinary team. For 6 months, 10-18 patients every month participate in this program and markers such as hemoglobin

A1C, change in self care practice, self efficacy, satisfaction, and utilization of inpatient and outpatient services were evaluated[12]. The results showed that "HbA1c levels declined by 1.3% in the intervention subjects versus 0.2% in the control subjects with a P value less than 0.0001"[12]. Significant improvements were also observed among self-management markers and patients were found to less frequently use inpatient and outpatients health services[12]. Based on these findings, Sadur et. al suggested multidisciplinary cluster visits to be a good strategy to improve hemoglobin A1c, self efficacy, patients' satisfactions and reduction in the use of health care services[12].

As is true of every research study, limitations exist and various factors that could have affected these results were discussed. For example, patients in the intervention arm of the study could have received a more rigorous care than patients in the control group. In fact it is very important to note that patients in the intervention group received sessions with diabetic nurse educators reviewing possible complications, significant symptoms, and difficulties in lifestyle managements. They received proper referral and a team pharmacist reviewed their medications list and made proper recommendations. They also received diabetic management by telephone in between monthly meetings. All the while, the control group simply continued to follow with their primary care physician, and the extent of the level of diabetic services they received during the study period was not at all addressed.

This study's primary end-point was to examine glycemic control and patient satisfaction between the two groups. Despite the lack of explanations for the level of care received by the control group, the study has shown a significant positive result for the primary outcome. A secondary end-point addressed is the effect of the intervention on health care utilization and cost of care. They suggested that the new approach may be "cost neutral in the short term", but

expressed that a limitation of their research is "the absence of information on the cost of intervention itself"[12]. The cost to implement this type of program obviously could not be suggested based on this study.

Although it was generally observed that this new cluster visit approach had its pertinent benefits, such as a clear increase in the number of patients a provider sees and support system for patients, a more effective research with similar standard of care that takes into account most or all aspects of both services was needed. The results of such research could then be used for a better comparison and suggestion.

In 2002, Rickheim et al. presented their report in the Diabetes Care Journal. Their primary focus was to simply assess group versus individual diabetes education when subjects receive equal educations and care[7]. They randomly assigned 170 patients with Type 2 diabetes to individual or group education sessions. They evaluated the following outcomes: change in knowledge, self management behaviors, weight, BMI, and HbA1c, health-related quality of life, patient attitudes, and medication regiments[7]. They assessed patients at baseline, post 2 weeks, 3 months and 6 months of the program[7]. Their results suggested that group and individual sessions provide comparable improvement in knowledge, BMI, Health-related quality of life, attitudes and all other measures educators[7]. Furthermore, overall hemoglobin A1c decrease from 8.5 +/- 1.8% at baseline to 6.5 +/- 0.8% at 6 months with a P value less than 0.01[7].

Comparing individual versus group session, patients who were assigned to individual sessions had a 1.7 +/- 1.9% reduction in HA1c with P value less than 0.01, while group setting patients had a 2.5% +/-1.8% reduction with an equal P value[7]. Six months follow up mean hemoglobin A1C were similar between the two groups. The wide applicability of this study, however, is potentially limited due to its demographic homogeneity. Another limitation is the

fact retention rate of the study was low. Despite those limitations, this report concluded that since both services were equally effective at delivering key components of diabetic education, group education is not disadvantageous and may be a more efficient and a cost effective approach for delivering diabetic education[7].

Lack of well done studies evaluating multiple factors such as cost effectiveness, correct group size, efficiency of staff, and long term health impact continue to make it difficult to definitely establish GMDVs as a better way to implement diabetic education. The roles that group and individual visits play in diabetic educations also have not been well defined. Despite these facts, most recent literature continues to show the positive effects group medical diabetic visit have on glycemic control and the satisfaction of patients and providers.

The Rapid Response Report, although not a comprehensive systematic review, provided sources for best evidence of group care for chronic disease management[13]. It evaluated the best literature sources and provided the best evidence on the clinical effectiveness of group versus individual visits, its cost effectiveness, and attempt to set evidence based guidelines for group care[13]. This report suggested better diabetic control is accomplished when education is implement using group visit rather than individual visit[13]. Even blood pressure was showed to have better control in group visit structures[13].

This report did not identify any evidence for specific structures and guidelines of group care, but did find diabetes management program that recommended and incorporated both group and individual sessions as part of delivering diabetic education[13]. This report did not choose nor recommend one method over another[13].

A systemic review and meta-analysis by Housden et al. evaluated the effectiveness of group medical visit in diabetes and found that "group medical visits had a positive effect on

clinical and patient reported outcomes with significant reductions in glycated hemoglobin"[9]. Based on this result, they further suggested that group medical visit should be implemented for diabetic management and will be beneficial to overall patients' health[9].

In regard to patient center care, Lavoie et al. examined the effect of Group Medical Visits (GMVs) [11]. The purpose of their research was to explore the literature and identified key factors involve in the delivery of patient center care in group setting. They examined large studies that focus on GMVs and report on "key format and process-oriented elements" that link to improved outcomes[11]. They also interviewed providers and patients who participate in GMVs. Their research has shown a shift in the role providers and patients play. In GMVs, provider's role is observed as "a facilitator who assists the group in defining norms of self-care that are based on medical knowledge but also on the broader context of patients' lived experience and on their pragmatic experience"[11]. Similarly, patients play a role of reinforcing these norms to self or each other[11]. These roles can most likely be observed in group settings and allow for a positive shift in the role providers and patients play. Overall, these roles are demonstratively beneficial because they increased trust, increase the knowledge of providers and patients, and improve self-management[11]. This research has shown an increase in satisfaction in both patients and providers[11].

The evaluation of the AltaMed diabetic group pilot program is expected to have a similar outcome. After examination of data for this specific program, the expectation is that patients' general health will improve. Their clinical markers will be stable or improved after completion of the program, level of motivation for self-management will increase, and they will be empowered to make lifestyle changes. The providers will find this program effective and

professionally rewarding. They will note an increase improvement in patients' general health, compliance, and will be more comfortable with patients' ability to self-manage their disease.

## Methodology

Diabetic patients at AltaMed offered acceptance into the Diabetes Group Visit Pilot Program. The providers, medical assistant and health educators recruited these patients by distributed flyers (figure 1) and required a call for registration. Five cities around Los Angeles and Orange County (Bell, Boyle Height, Commerce, Bristol and Huntington Beach) were the pilot sites. Five providers led the pilot program with the help of health educators. The intervention included two hour sessions about a month apart for a total of three sessions during the 3 months duration of the program. Each session had an agenda prepared (figure 2). The guidelines (figure 3) identified best practices for a successful session, stable recruitment & retention, and further collaborations. Vital signs, attendance and MD productivities (table 1) noted during each session. All patients had pre and post lab work drawn, but only graduates' information were used to evaluate the program.

Evaluation of the program centers around the quantitative and qualitative measures that was attained and examined. The quantitative data focuses on key clinical markers for diabetes: BMI, systolic blood pressure, diastolic blood pressure, cholesterol, LDL, Glucose and Hemoglobin A1c. The clinical markers were gathered from patients' medical record through the program director and AltaMed IT.

In order to gather the qualitative data, health educators called the graduates and administered the survey. They translated the survey to Spanish to accommodate patients who do not understand English. The patients' survey questions focus on assessing change in patients'

general wellbeing and lifestyle changes incorporated since completing the program. It also focuses on patients' mindset about the program. Physicians who conducted the program were surveyed through Survey Monkey. The questions in this survey focus on patients' compliance and involvement in their care, providers' comfort level with patients ability to self manage and patients improvement during and after the program. The providers' survey also addresses the style of diabetic education providers prefer or find most effective.

The clinical markers and surveys were analyzed using IBM SPSS statistical analysis to establish change, difference, and significance. Microsoft Office Excel was used for graphic visualization of the results. A timeline (figure 4) was designed to make sure that steps were been taking for timely completion of this project.

## Results

On average, eight patients attended each session and each physician saw four patients per hour. Twenty-six patients attended all three sessions and graduated from the pilot program in April 2014. The mean age of these patients was fifty four years old. Of these patients, 70.4% were female and 29.6% were male. All the patients were Hispanic descent and 70% of them never smoked, while 22% were former smokers. The key quantitative results are as follow: BMI N=24; Mean diff= .51; P=.326, Systolic BP N=20; Mean diff= 9.0; P= .049, Diastolic BP N= 19; Mean diff= 0.7; P= 0.768, Cholesterol N=10; Mean diff= 20.9; P= 0.003, LDL N= 11; Mean diff= 20.9; P= 0.001 and hemoglobin A1c N=19; Mean diff= .94; P=0. 014.

Out of the twenty-six patients who graduated the program, health educators were able to reach and administer the survey to eleven patients. In all of the three categories of the patients' survey, the responses to the questions were overwhelmingly positive [refer to page 21-23 for charts]. About 90% of patients agreed they feel better about their general health, diabetes

interfere less with their life, decrease level of stress, better control over diabetes and its complication, and overall better prepared to manage their disease and have an increased confidence to do so since completing the program. These patients also believe that the program met their needs for management of their disease process. They believe participation in this program increased trust in their providers and empowers them to make lifestyle changes. Most of these patients in fact have made some types of lifestyle changes since completing the program. While 72% did not do any physical activity prior starting the program, 81% incorporated physical activity in their life after completing the program. As for diet change, 64% did not think about their food choices prior to starting the program, but 100% of the patients think about what they eat and made changes in their diet since completing the program. When asked, if given the choice, which visit patients would prefer to attend on a regular basis, 55% prefer group visit, 27% prefer individual visit, and 18% prefer a combination of both. Also, many patients seem to view the program as an educational and support group, rather than part of normal visit with their providers.

Out of the five providers who directed the program, three replied to the survey [refer to page 23-25 for charts]. Of those physicians who replied, 66% agree that most patients who participated in the program are more prone to comply with their suggestions during and after the program, but when directly asked if they believed patients who participate in the program are more active in their care, the answers were mixed. All providers observed a general trend of improvement in patients who completed the program. They observed emotional/physical state, lifestyle, and lab values changes. Despite the changes observed, physicians' level of comfort with patients self managing their disease remains unchanged. Lastly, when physicians are asked which visits they find more effective and rewarding for diabetic management, the answer differs

across the board. Some think that the two types of visits have different roles and cannot say one is more effective than other, while other prefer group visits, individual visits, or a combination of both.

## Discussion

Paired sample T test was used to test for null hypothesis on the pre and post variables. If the intervention had no effect, the average difference between the pre and post measurements would be zero justifying the null hypothesis. Since the average differences between the variables were greater than zero, the results rejected the null hypothesis. As these results are being discussed, keep in mind that this intervention was conducted for a short period of time (three months). Also, patients returned to their regular doctors' follow up, and post clinical data gathered from the charts were completed on average within 6-12 weeks of completing the program.

These results demonstrated significant decrease from baseline most specifically in systolic blood pressure, Cholesterol, LDL and Hemoglobin A1c. Systolic blood pressure decreased by 9 points. Cholesterol and LDL were significantly decreased by 20.9 points. Hemoglobin A1c significantly decreases by 0.94 points. Although not significant in regard of 2-tailed test (P value), note that the average individual had a .51 decrease in BMI.

Paired Sample Correlations between pre and post variables demonstrated statistically significant positive correlation in most variables suggesting the clinical markers were lower overall and the changes noted were consistent across subjects. Furthermore, it is reasonable to conclude that the average mean differences are not due to chance in variation and can actually be attributed to the intervention since most of the 2-tailed tests are less than 0.05. These changes are very important because they can potentially decrease patients' risk for a number of diseases.

Recording data error in the glucose marker made the glucose results likely unreliable. In the process of retrieving the data, it was not clear if the glucose measurements were fasting, non-fasting or a mixture of both. Also, a comparison of the glucose values highly suggests some form of error or bias. In light of this finding, the glucose results were deemed unreliable and were not reported.

In regard to the results of the surveys, those results strongly suggest that patients benefits from this program in various ways. Patients' generally prefer this program. They believe they are better prepared and have better control over their disease process. General improvement in lifestyle changes and overall health were observed from the point of view of both patients and providers.

Patients described the program as educational and/or support group rather than simply part of their doctor visits. The way patients perceive these sessions is very important especially for retention purposes. Patients who view this session as part of their regular doctor visit might be more inclined to attend. Appropriate education is necessary to inform patients of one-one doctor visit integration into these sessions.

There seems to be a disagreement between providers and patients in regard to the topic of self-management. Patients want to have better control over their disease and are empowered to make life changes. Most have made lifestyle changes, but providers' comfort in the ability of patients for self-management did not change. What is this disparity telling us? Are providers good at estimating patients' ability to self-manage? Are we shooting for perfection and ignoring the small steps our patients are making to improve their disease and overall health.

Cost is a topic for further discussion. It is established that the resources needed to run group programs are more than it takes to run individual sessions. These group programs tend to

be costly, so the sustainability of such program still needs to be addressed. The hope is that revenue of such programs will offset the cost. For example at AltaMed, providers in individual sessions see about 2.6 patients per hour, while the provider in the DGMV's pilot program saw on average four patients per hour. So, although it cost more to run the diabetic group visit program, the assumption is the revenue will offset the cost.

Multiple limitations exist; first and foremost, documentation of the data was not performed in the most appropriate manner to avoid error and bias. There could be error and bias also during collection of data. The data were collected through patients' charts and specific criteria were given to minimize these errors but the possibility still exists. Importantly, the results of this study can't be generalized to all diabetic patients because of its demographic homogeneity; the subjects were all Hispanic middle age female.

## Recommendations

The most important recommendation is to set and apply better guidelines to eliminate the potential for error and bias. Better documentation and collection of data is of utmost importance. Instead of gathering the data from patients' charts and/or other sources, the program should assign a specific person to collect and manage the data. The data should be kept in a spreadsheet, and reviewed regularly for any error or missing information. A timeline should be set for when patients' clinical markers are drawn and documented before, during, and after completion of the program to minimize possibilities for bias.

Inclusions and exclusions criteria should be set for this program. It is important to establish the patients in which would benefit most and eliminate other confounding factors that could lead to misinterpretation of data. For retention purposes, the program should be advertised to explain its benefits and the role of group versus individual sessions, and the overlap between

them should be explained to patients. Lastly, cost and revenue of this program should be directly calculated to provide evidence for the speculation that revenue will offset cost.

## Conclusion

Since the implementation of group visits for management of chronic disease, experts have had mixed opinion. In general, the available evidence suggests that diabetic education through a group setting is equally effective to individual settings. However, group visits have multiple benefits and provide slightly an immediate higher improvement in clinical markers that may equalized over the long run. The available evidence further suggests Diabetes Group Medical Visit (DGMVs) programs help patients build a support system and can learn from each other struggles and successes. The fact that an interdisciplinary team directed this type of program provides patients with the tools they need. The disease process is complex and is managed best by addressing the different factors. An interdisciplinary team makes that possible. The possibility that this program could decrease cost is another reason for choosing it. The goal of discussing this topic is not to state that one program is better over another, but the literature prefers group program in diabetic education because of its inherit benefits and better overall improvements.

The Diabetes Group Medical Visits pilot program at AltaMed had positive impact on patients overall health and management of their disease. The program met its objectives; it increases patients' knowledge on diabetes, it induces behavior change, and improve most clinical outcome. The program should continue with implementation of better guidelines.

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# Appendix

## FIGURE 1: SAMPLE FLYERS



**Diabetes Group Visits!**

AltaMed is pleased to announce a new program to help you better manage your diabetes

Diabetes Sessions in Spanish with Dr. Caithness Rodriguez

Session 1: Saturday, February 22, 2014
Session 2: Saturday, March 29, 2014
Session 3: Saturday, April 26, 2014

10:00 am - 12:00 pm

AltaMed Medical & Dental Group - Bell
6901 Atlantic Ave., Bell, CA 90201

This unique approach can help build your self-management skills by:

- Offering medical exams and preventative care
- Providing counseling and education
- Helping you keep better control of your blood sugar
- Lowering your use of medications
- Allowing you to spend more time with your doctor and meet others who are on the same journey

Registration required! Call:
(323) 558-7606

AltaMed has the distinction of having received The Joint Commission Quality Care Seal of Approval since 2002.

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**FIGURE 2: SAMPLE AGENDA**

**I. Patients Arrive & Check-in**                    3:45 pm -4:00 pm

**II. Vitals**                                        4:00 pm -4:20 pm

**III. Health Education Session (Health Educator)**   4:21 pm -5:20 pm

- **Set "ground rules" with participants**

- **What is diabetes**

- **Principles of Self Management**

**IV. Review how to use glucometer**

**V. Order glucometers for patients without glucometer (MA)**

**VI. Q&A (Dr. Pantoja)**                             5:21 pm -5:45 pm

**VII. Administer Self-Efficacy Evaluation**          5:45 pm -6:00 pm

**FIGURE 3: PROGRAM GUIDELINES**

*FOR A SUCCESSFUL SESSION*

- Review ground rules at beginning of each session

- Assign more than one GVO to check-in patients so that the process is completed in a timely manner

- Have at least 2 designated MAs to assist with vitals

- Have MA review patients' charts the day before and flag any concerns or needed referrals (it saves the provider time)

*FOR RECRUITMENT & RETENTION*

- Advertise program as a group visit with Provider (and not just a regular health ed class)

- Whatever your desired group #, over-recruit by half

- Have patients arrive ½ hour early to complete vitals and start class on time

- Use Health Promoter to make personal reminders by phone and follow-up with the patients in-between sessions

- Schedule follow-up visits on the same day & time as the DM Group Session

- Offer an incentive for those that complete program

- Provide a healthy snack and/or easy cooking demo

- Provide patient with lab results during the DM Group Visit (it's one more thing patient has to look forward to coming)

- Provider should aim to spend 1:1 time with patient.

- For continuity of care, schedule follow-up appointments for all patient who complete program

*FOR COLLABORATION*

- Involve other specialties and programs such as behavioral health and clinical pharmacy

- Provide monthly check-ins to highlight successes& challenges

- Obtain buy-in and support from clinic administration and other staff

**TABLE 1: ATTENDANCE & MD PRODUCTIVITY**

## OUTCOMES—ATTENDANCE & MD PRODUCTIVITY

| Session 1 | Booked | Kept | Provider Productivity (# of pts/ 2 hr) |
|---|---|---|---|
| Commerce | 13 | 10 | 5.0 pt/hr |
| Boyle | 25 | 13 | 6.5 pt/hr |
| Bell | 19 | 8 (+2 guests) | 4.0 pt/hr |
| Bristol | 22 | 12 | 5.5 pt/hr |
| Huntington Beach | 3 | 1 | 0.5 pt/hr |

| Session 2 | Booked | Kept | Provider Productivity (# of pts/ 2 hr) |
|---|---|---|---|
| Commerce | 11 | 7 (+ 1 guest) | 3.5 pt/hr |
| Boyle | 16 | 13 (+3 guests) | 6.5 pt/hr |
| Bell | 20 | 12 (+1 guest) | 6.0 pt/ hr |
| Bristol | 13 | 9 (+2 guests) | 4.5 pt/hr |
| Huntington Beach | 8 | 2 | 1.0 pt/hr |

| Session 3 | Booked | Kept | Graduates | Provider Productivity (# of pts/ 2 hr) |
|---|---|---|---|---|
| Commerce | 11 | 5 | 2 | 2.5 pt/hr |
| Boyle | 16 | 12 | 12 | 6.0 pt/hr |
| Bell | 17 | 7 | 6 | 3.5 pt/hr |
| Bristol | 12 | 8 | 7 | 4.0 pt/hr |
| Huntington Beach | 6 | 3 | 0 | 1.5 pt/hr |

6

**FIGURE 4: PROGRAM EVALUATION TIMELINE**

## PROGRAM EVALUATION TIMELINE

*week 1:* Complete physicians' and patients' surveys

*week 2:* Administer patients' and physicians' surveys and collect clinical data

*week 3:* Patients' and physicians' surveys are completed and clinical data are obtained

*week 4:* Analysis of surveys and clinical markers

*week 5*: Start write up, finalize the analysis of data, and start on PowerPoint presentation

*Week 6*: Complete PowerPoint presentation and get ready for project presentation.
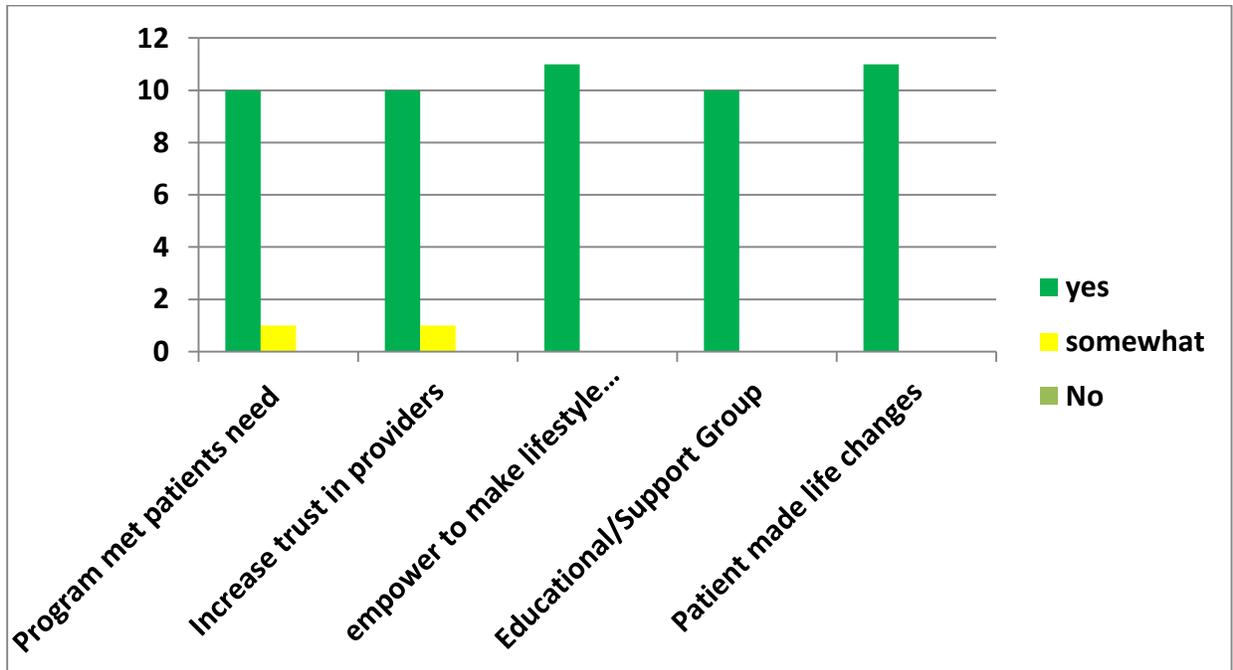
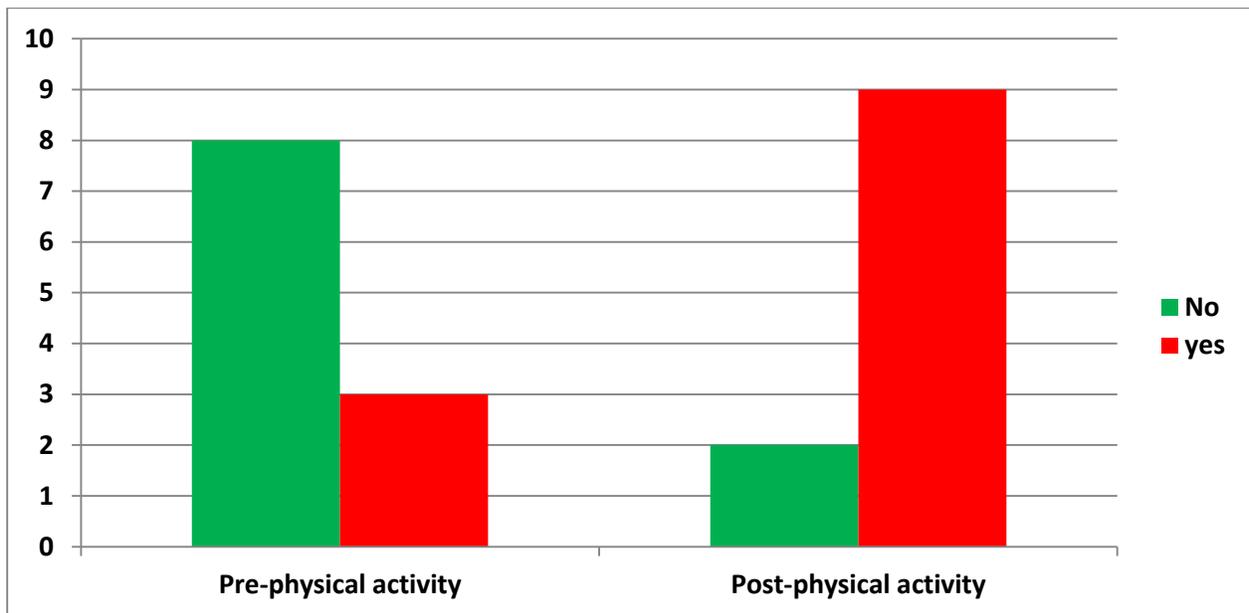# DIABETIC GROUP VISITS POST PILOT PROGRAM SURVEY RESULTS
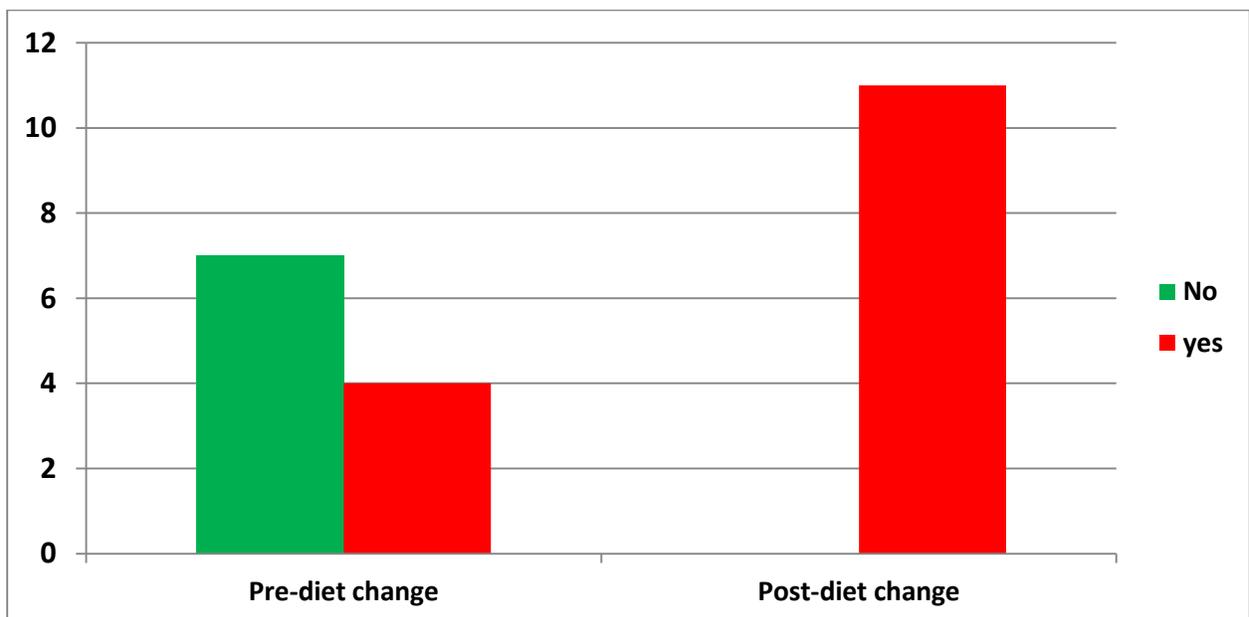
## PATIENT SURVEY

### Assessment of General Wellbeing
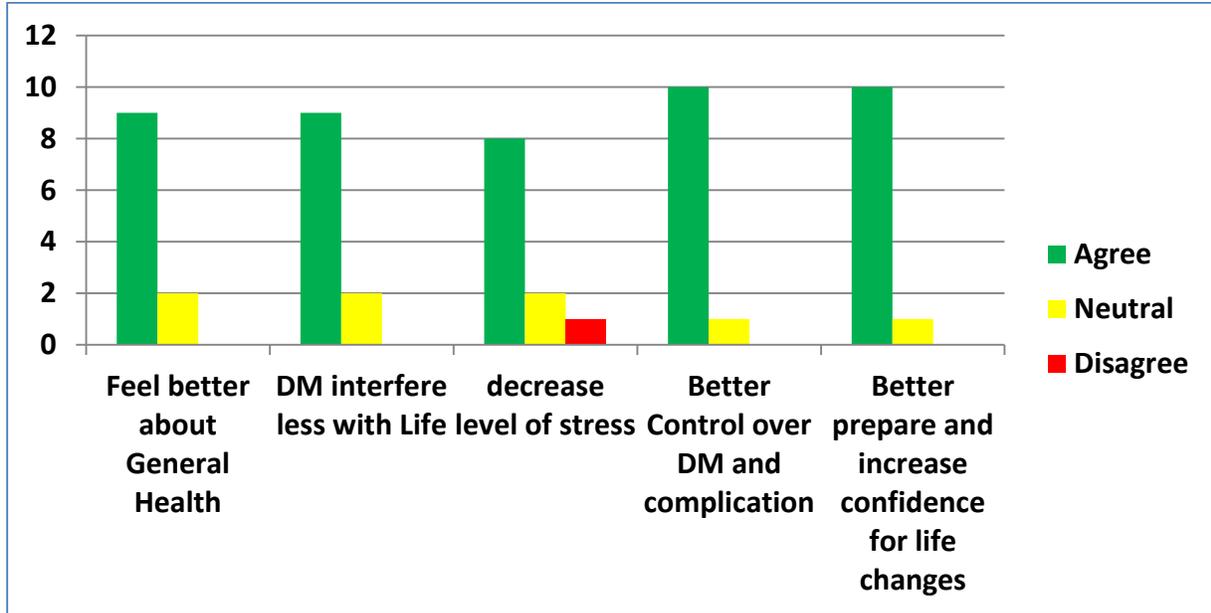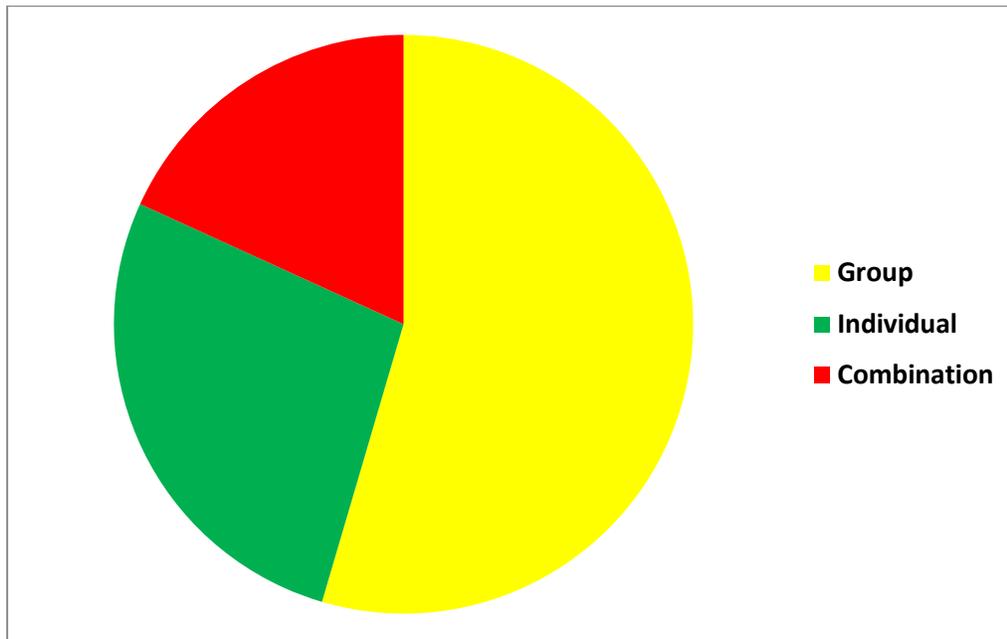


### Assessing patients mindset about the program

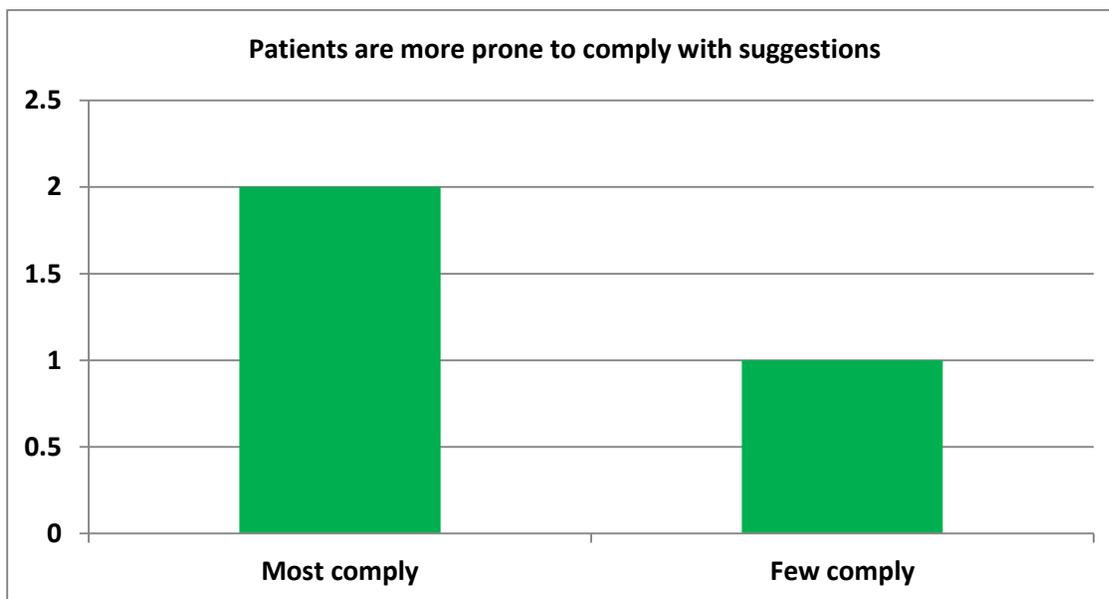## Lifestyle change: Physical activity



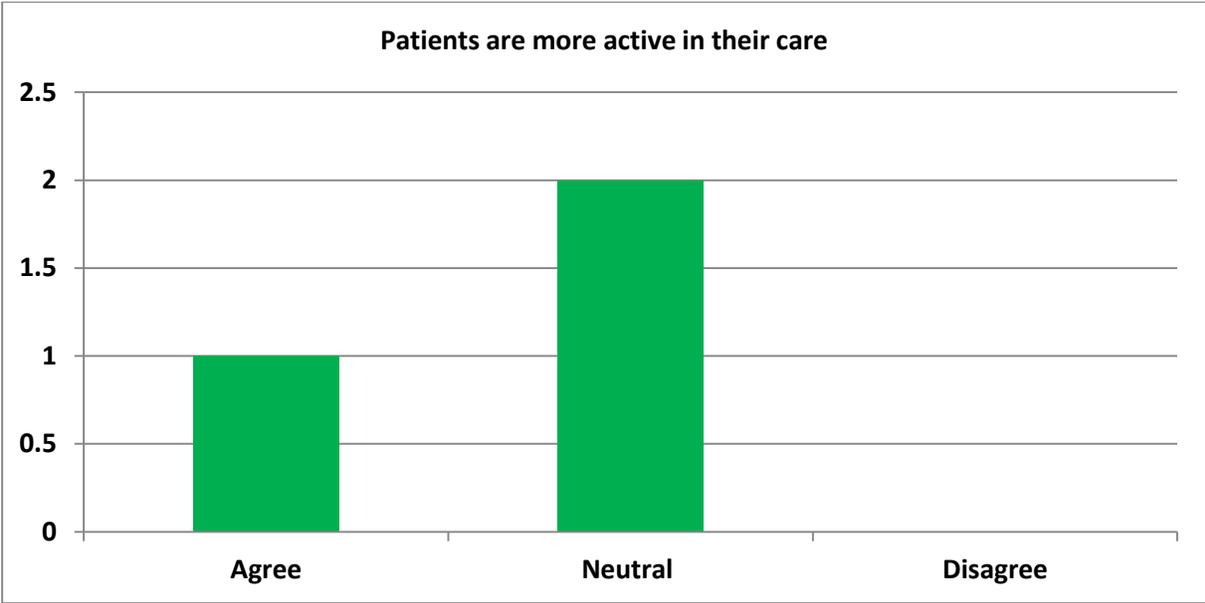## Lifestyle change: Diet

**Type of visits patients prefer**



**PHYSICIAN SURVEY**

**Patients' compliance**

**Patients' involvement in their care**

**Patients are more active in their care**

| | |
|---|---|
| 2.5 | |
| 2 | |
| 1.5 | |
| 1 | |
| 0.5 | |
| 0 | |
| | Agree    Neutral    Disagree |

**Improvement during and after program**

**General trend of improvement**

| | |
|---|---|
| 3.5 | |
| 3 | |
| 2.5 | |
| 2 | |
| 1.5 | |
| 1 | |
| 0.5 | |
| 0 | |
| | yes    no |
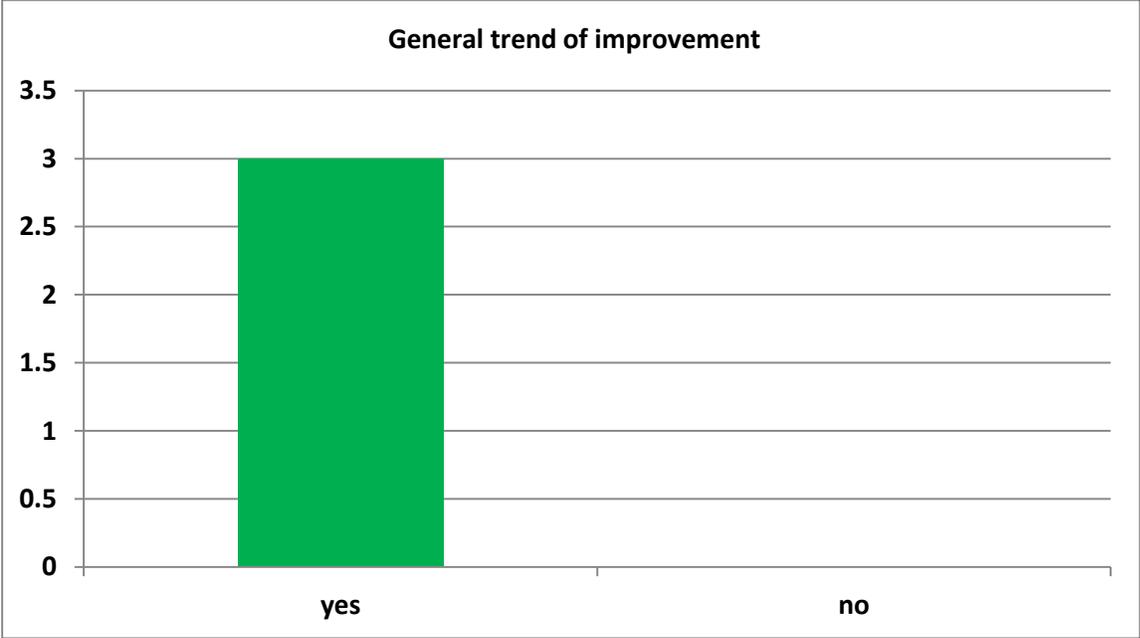
## Comfort with self-management



Legend:
- ■ (red) Prior comfortability with self management
- ■ (green) post comfortability with self management

X-axis: Extremely, Somewhat, Uncomfortable
Y-axis: 0 to 3.5

## Visits prefer



Legend:
- ■ (blue) which visit do you find more effective
- ■ (green) which visit do you find more rewarding

X-axis: individual, group, both
Y-axis: 0 to 1.2