



Guelph Family  
Health Team

# Outcomes Measurement

Setting ourselves up for measurable success

DiabetesCare  
Guelph

Breanne Anderson BScN MSc RN

# Outcomes Measurement

*“ Perseverance is not a long race; it is many short races one after another”*

- Walter Elliott

# Presenter Disclosure

- **Presenters:** Breanne Anderson
- **This program has no relationships with commercial interests**
- **This program has received no financial or in-kind support**
- **This program has no potential for conflict of interest**

# Overview

- Rationale
- History
  - IMS
  - Custom Form
  - Data Pull
- Custom Query
- Results
- Focus Group
- Future Directions



# Rationale

- Drummond Report – 2012
  - *“The LHINs should set accountabilities for primary care provider remuneration as well as regional health system performance... affording LHINs the ability to focus on outcomes and ease off on inputs and process will help drive positive results... Establish target outcomes for LHINs in areas such as mental health and diabetes...”* (Recommendation 5-43)
  - *“Tie compensation... in all parts of the health care system to strategically targeted health outcomes, not the number of interventions performed.”* (Recommendation 5-28)

# Rationale

- Quality Improvement Plans (QIP)
- Measurement helps:
  - Build a case for change
  - Learn about your system
  - Progress towards your aim
  - Sustain the aim
- Collect useful data, not perfect data
- Use existing data if available, but use a paper and pencil until the information system is ready
- Use qualitative data (feedback)
- Build data collection into day-to-day processes

# IMS

**FHTstats** Home My Practice My Stats Manage Time Tracker

### RECORD INDIVIDUAL ENCOUNTERS

\* Denotes a required field

Appointment Date\*

Clinic

Type of Encounter\*

#### ARRIVAL STATUS

On Time  Late  Cancellation  Late Cancellation  No Show

Date Taken

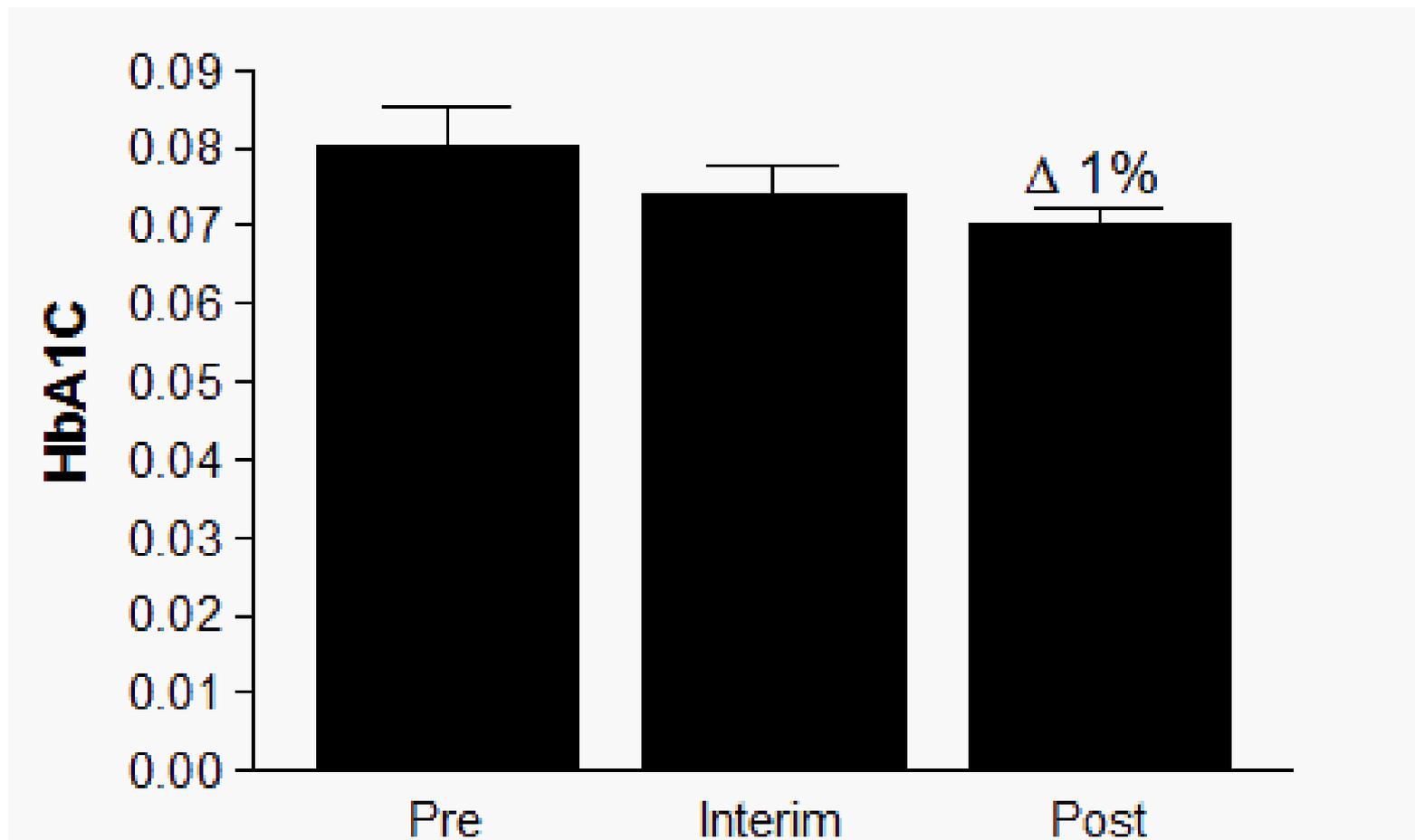
Type of Value

FBS, A1C, BP, WC

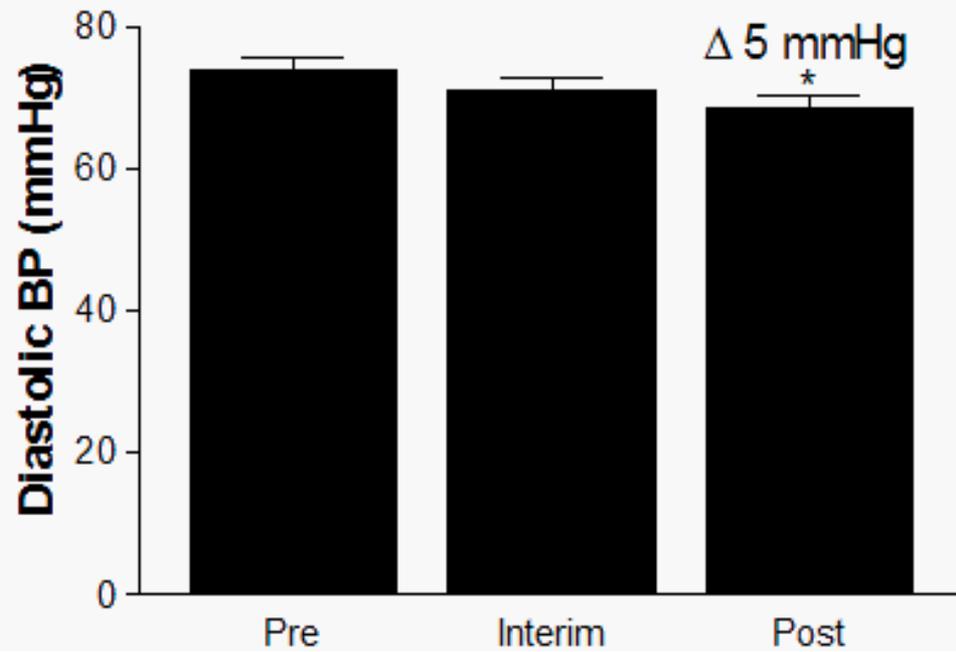
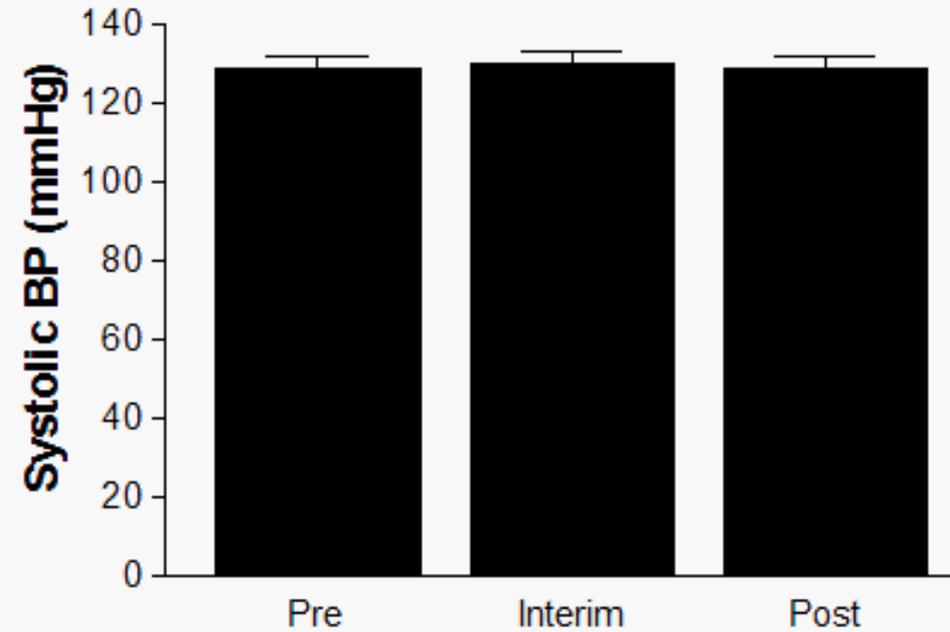
# IMS

- Very limited complete data sets
  - A1C = 15
  - BP = 38
  - WC = 11
- Grouped data into: Pre – Interim – Post
- Correlations – Pre and Post
- Statistica

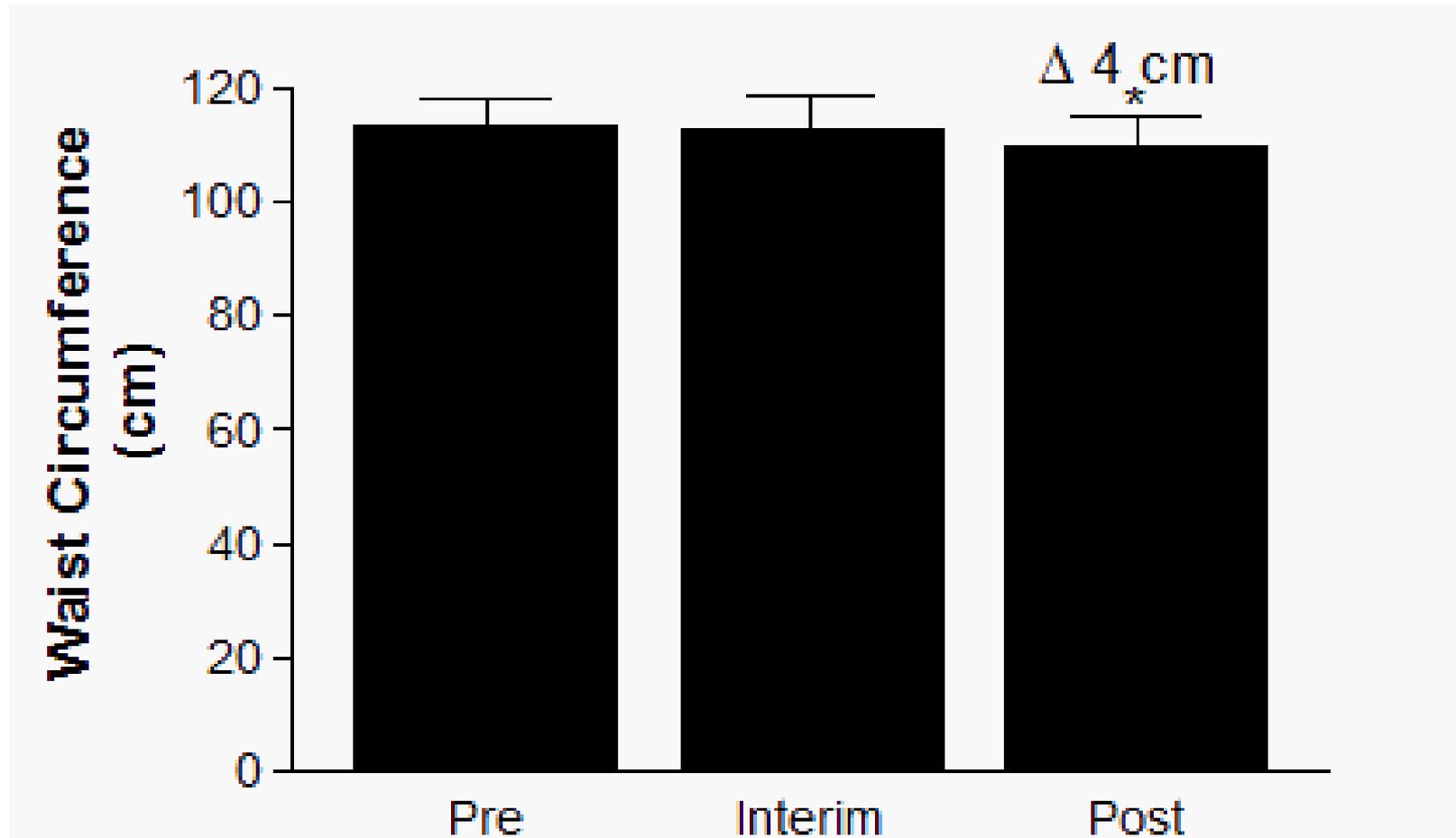
# IMS Results



# IMS Results

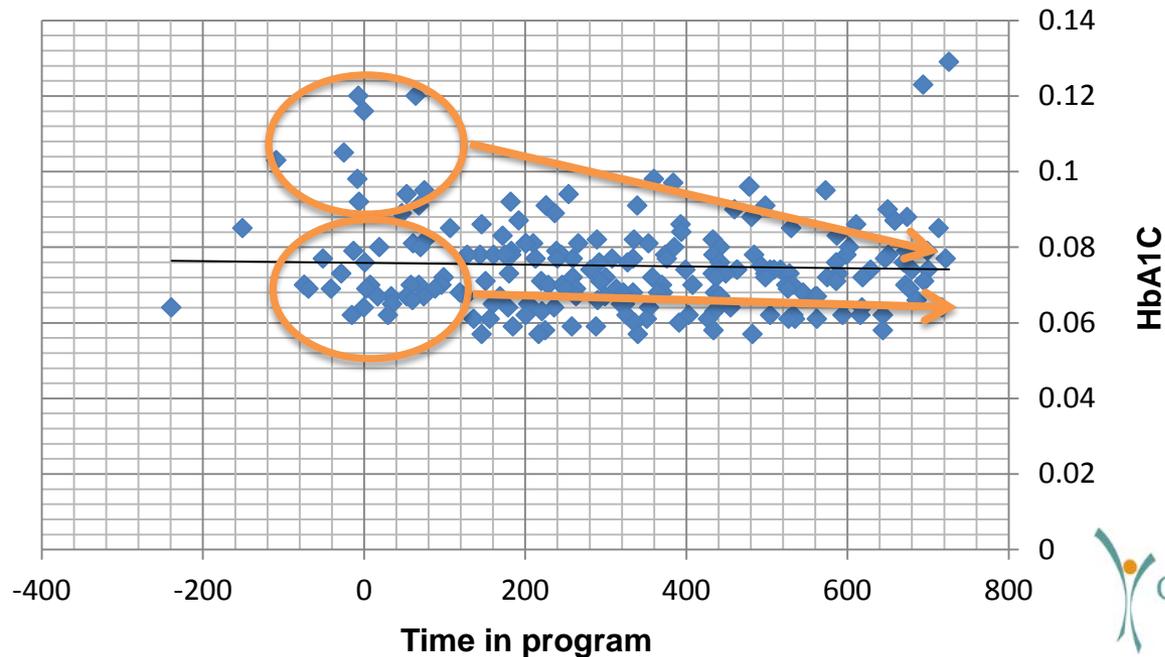


# IMS Results



# IMS

- Correlations showed greatest beneficial effect on most uncontrolled risk factors
- Maintenance of values close to target
- WC reduction – addition of insulin or SU vs increased focus on lifestyle
- ANOVA



# Custom Form

- Way to collect more data with structure
- To be done at intake and every 3 months
- Searchable through Practice Solutions Suite (PSS) so more analyses possible
- Several versions – 3 pages to 1 page by June 2011
- CDA Guidelines

# Diabetes Care Guelph Visit



Provider Initials: _____		Initial Appt: <input type="checkbox"/>		Time In Program (mo): _____		Time of Appointment: _____		
<input type="checkbox"/> Type 1 <input type="checkbox"/> Type 2 <input type="checkbox"/> Metabolic Syndrome <input type="checkbox"/> Pre-Diabetes <input type="checkbox"/> Gestational				<input type="checkbox"/> Compassionate Insulin <input type="checkbox"/> Compassionate Strips				
Duration: _____								
<b>Lab Test</b> Latest Value    Date of Latest FBS    never done    _____ HbA1C    never done    _____ LDL    never done    _____ HDL    never done    _____			<b>Lab Test</b> Latest Value    Date of Latest CHOL    never done    _____ CHOL/HDL    never done    _____ TG    never done    _____ ACR    never done    _____ B12    never done    _____					
<b>History:</b> SMBG <input type="checkbox"/> Yes <input type="checkbox"/> No Hypoglycemia <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Testing CVD <input type="checkbox"/> Yes <input type="checkbox"/> No ED <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A GI Disturbance <input type="checkbox"/> Yes <input type="checkbox"/> No Dental Assessment    Date of Latest: _____ Eye Exam    Date of Latest: _____ PHQ - 4    Date of Latest: _____ Score: _____ <input type="checkbox"/> Not Due				<b>Comments:</b>				
<b>Physical:</b> BP(mmHg): _____    Wt (kg): _____ Foot Exam    Date of Latest: _____ <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal <input type="checkbox"/> ...ferred CVD <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal <input type="checkbox"/> ...t Due CVD Risk    Not Assessed				BMI (kg/m2): _____    WC (cm): _____    Ht (cm): _____ <b>Comments:</b>				
<b>Med Review:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No ACE/ARB <input type="checkbox"/> Yes <input type="checkbox"/> No Recommendations/Changes <input type="checkbox"/> Yes <input type="checkbox"/> No				<b>Comments:</b>				
<b>Lifestyle Review:</b> Exercise <input type="checkbox"/> Meeting Recom <input type="checkbox"/> Not Meeting Recom <input type="checkbox"/> Not Assessed Smoking <input type="checkbox"/> Non-smoker <input type="checkbox"/> Smoker <input type="checkbox"/> Not Assessed Nutrition <input type="checkbox"/> Adequate <input type="checkbox"/> Needs Improvement <input type="checkbox"/> Not Assessed MH Issues/Stress <input type="checkbox"/> None <input type="checkbox"/> Identified <input type="checkbox"/> Not Assessed				Self Management Goals <input type="checkbox"/> Set / Reviewed <input type="checkbox"/> Declined Self Management Challenges <input type="checkbox"/> None <input type="checkbox"/> Discussed Patient Goals: <input type="checkbox"/> Not Assessed				

**Clinical Notes:**



# Data Cleaning

Patient #	Age	DCG Form # of times done	Provider Initial	Provider Initial 2	Provider Initial 3	Initial Appt	Time in Program (mo)	Time of Appointment	Type 1	Type 2	Metabolic Syndrome	Pre-Diabetes	Gestational	Duration (mo)
65731	55	2	CR	NULL	NULL	FALSE	9	14:45	FALSE	TRUE	FALSE	FALSE	FALSE	24 mo
65761	62	2	AA			FALSE		15:30	FALSE	TRUE	FALSE	FALSE	FALSE	
65782	67	3	AA			FALSE	10	14:30	FALSE	TRUE	FALSE	FALSE	FALSE	30 mo
65789	75	4	SMC	SMI		FALSE	12mo	11:00am	FALSE	FALSE	FALSE	TRUE	FALSE	
65791	45	3	LBR	MD		FALSE	10	16:00	FALSE	TRUE	FALSE	FALSE	FALSE	
65877	56	2	JGO	GWL		FALSE	3	10:30	FALSE	TRUE	FALSE	FALSE	FALSE	
65889	79	3	lb	mh		FALSE	9	13:00	FALSE	TRUE	FALSE	FALSE	FALSE	

- Provider inconsistencies
- Only pulls most recent custom form – others require manual entry

# Data Cleaning

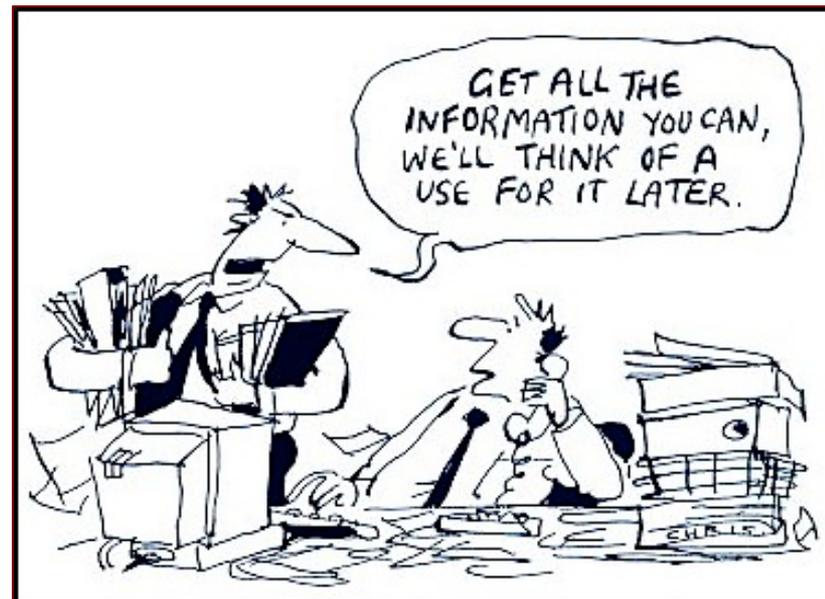
Patient #	Age	DCG Form # of times done	Provider Initial	Provider Initial 2	Provider Initial 3	Initial Appt	Time in Program (mo)	Time of Appointment	Type 1	Type 2	Metabolic Syndrome	Pre-Diabetes	Gestational	Duration (mo)
55694	35	1				TRUE								
55694	35	2 MD				FALSE		10:00	FALSE	TRUE	FALSE	FALSE	FALSE	
55847	56	1				TRUE								
55847	56	2				FALSE								
55847	56	3				FALSE								
55847	56	4 CDUG	GWL	NA		FALSE	9	11:30	FALSE	TRUE	FALSE	FALSE	FALSE	2
56375	54	1				TRUE								
56375	54	2 GWL	AA			FALSE	3	13:15	FALSE	TRUE	FALSE	FALSE	FALSE	12 mo

Patient #	Age	DCG Form # of times done	Provider Initial	Provider Initial 2	Provider Initial 3	Initial Appt	Time in Program (mo)	Time of Appointment	Type 1	Type 2	Metabolic Syndrome	Pre-Diabetes	Gestational	Duration (mo)
69060	62	1	MD	LBR		TRUE	0	14:30	FALSE	TRUE	FALSE	FALSE	FALSE	10 yrs
69060	62	2	GWL	AA		FALSE	2	9:30	FALSE	TRUE	FALSE	FALSE	FALSE	120 mo
69124	51	1	LBR	MD		TRUE	0	15:30	FALSE	TRUE	FALSE	FALSE	FALSE	new
69124	51	2	LBR			FALSE	4	15:30	FALSE	TRUE	FALSE	FALSE	FALSE	4 mo

# Data Pull – PS Suite

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL			
	Date of	MD	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB	DOB
138	55486	65			2	LIB	MD					FALSE	31	8:30	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	6.7	23-Nov-11	0.057	22-Nov-11	2.03	04-Nov-10	1.02	04-Nov-10	never done	2.7	14-Jul-10	FALSE							
139	55130	61			3	LIB	MD					FALSE			FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	6.4	16-Nov-11	0.076	16-Nov-11	1.57	16-Nov-11	1.49	16-Nov-11	2.59	16-Nov-11	2.59	16-Nov-11	1.75	16-Nov-11	4.8	16-Nov-11	137	137	137	
140	55139	56			3	JGO	LA					FALSE	13	11:30	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	6.8	15-May-12	0.054	15-May-12	2.47	18-Jun-11	1.02	18-Jun-11	4.3	18-Jun-11	4.3	18-Jun-11	1.86	18-Jun-11	never done	never done	never done	never done		
141	55103	54			3	AA						FALSE	21	10:00	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	5.9	19-Apr-11	0.058	19-Apr-11	1.80	19-Apr-11	0.95	19-Apr-11	4	19-Apr-11	2.21	19-Apr-11	0.3	19-Apr-11	never done	never done	never done			
142	55608	28			1	AA						FALSE			TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	3.9	12-Apr-11	0.144	08-Oct-10	1.82	08-Oct-10	1.41	08-Oct-10	3.09	08-Oct-10	3.09	08-Oct-10	2.48	08-Oct-10	never done	never done	never done	never done		
143	55637	54			1	MD						FALSE	12	13:00	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	7.9	18-Mar-11	0.008	18-Mar-11	1.9	18-Mar-11	3.9	18-Mar-11	3.9	18-Mar-11	3.08	18-Mar-11	never done	never done	never done	never done				
144	55691	47	Lucille Chan		1	GW						FALSE	0	13:00	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	10	30-Aug-10	0.087	30-Aug-10	2.31	30-Aug-10	1.09	30-Aug-10	3.7	30-Aug-10	3.7	30-Aug-10	1.4	30-Aug-10	34.5	23-Aug-10	never done	never done		
145	55704	62			2	AA						FALSE	18	9:45	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	5.5	02-Mar-12	0.054	02-Mar-12	1.97	02-Mar-12	1.64	02-Mar-12	2.4	02-Mar-12	2.4	02-Mar-12	0.78	02-Mar-12	0.6	23-Feb-11	never done	never done		
146	55712	51			1	CDUC	LA	NA				FALSE	18	14:15	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	7.2	17-Feb-12	0.06	17-Feb-12	1.26	17-Feb-12	0.92	17-Feb-12	3.61	17-Feb-12	3.61	17-Feb-12	2.51	17-Feb-12	never done	never done	never done	never done		
147	55760	47			4	JGO						FALSE	18	11:15	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	7.7	26-Jul-11	0.073	26-Jul-11	2.42	26-Jul-11	0.97	26-Jul-11	4.6	26-Jul-11	4.6	26-Jul-11	2.21	26-Jul-11	never done	never done	never done	never done		
148	55770	40			1							FALSE			FALSE	8.6	30-Mar-10	0.078	30-Mar-10	1.38	30-Mar-10	0.94	30-Mar-10	2.81	30-Mar-10	2.81	30-Mar-10	0.7	30-Mar-10	never done	never done	never done	never done								
149	55854	61			1	GW						FALSE	9	15:30	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	6.9	23-Sep-10	0.087	23-Sep-10	never done	never done	0.7	23-Sep-10	7.1	23-Sep-10	7.1	23-Sep-10	7.43	23-Sep-10	never done	never done	never done	never done		
150	55869	56			1	AA	GW					FALSE	10	15:30	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	6.1	25-Oct-10	0.062	18-Feb-11	2.97	25-Oct-10	0.94	25-Oct-10	never done											
151	60104	58			1	CDUC	LA	NULL				FALSE	9:00	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	5.5	11-Jul-11	0.054	11-Jul-11	1.92	11-Jul-11	0.77	11-Jul-11	4.79	11-Jul-11	4.79	11-Jul-11	2.21	11-Jul-11	never done	never done	never done	never done		
152	62083	58			2	CDUC	LA	NE				FALSE	16	9:00	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	7.9	25-Aug-10	0.073	08-May-11	0.96	08-May-11	0.82	08-May-11	3.2	08-May-11	3.2	08-May-11	1.9	08-May-11	never done	never done	never done	never done		
153	62102	48	Gaylene Alvarez		2	GW	AA					FALSE	15	15:50	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	3.1	27-May-11	0.078	27-May-11	2.36	29-Nov-10	0.83	29-Nov-10	4.31	29-Nov-10	0.86	29-Nov-10	1.4	29-Nov-10	1.4	29-Nov-10	never done	never done		
154	62186	48			2	AA						FALSE	18	13:45	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	3.8	24-Feb-12	0.062	24-Feb-12	1.39	24-Feb-12	1.28	24-Feb-12	2.5	24-Feb-12	2.5	24-Feb-12	1.16	24-Feb-12	never done	never done	never done	never done		
155	62417	61			2	GW	AA					FALSE	14	9:30	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	7.6	23-Aug-10	0.080	10-Nov-11	1.25	23-Aug-10	0.96	23-Aug-10	3.78	23-Aug-10	3.78	23-Aug-10	3.23	23-Aug-10	never done	never done	never done	never done		
156	62438	70			3	JGO	OK					FALSE	15	10:30	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	5.8	16-Aug-11	0.079	16-Aug-11	1.7	16-Aug-11	1.32	16-Aug-11	2.71	16-Aug-11	2.71	16-Aug-11	0.86	16-Aug-11	never done	never done	never done	never done		
157	62441	83			2	LIB	edg					FALSE			FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	10	27-Jul-11	0.073	06-Jan-12	1.92	27-Jul-11	1.32	27-Jul-11	3.1	27-Jul-11	3.1	27-Jul-11	1.94	27-Jul-11	28.9	06-Jan-12	never done	never done		
158	62498	61			2	AA						FALSE			FALSE	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE	7.7	08-Aug-10	0.071	08-Aug-10	1.98	08-Aug-10	1.17	08-Aug-10	3.6	08-Aug-10	3.6	08-Aug-10	2	08-Aug-10	never done	never done	never done	never done		

- Too much too soon
- Extensive cleaning
- Lack of focus on provider consistency
- More than 1 – 2 person job



# Custom Query

- Outcomes committee:
  - RN, RD, health promoter – refine search criteria to narrow scope of data analysis. FHT collaboration.
- Pulls all Custom Form results within a defined time frame; choose which aspects of the form are pulled – Excel template
- Data cleaning – exclusion criteria, months of visit, separating systolic and diastolic BP, removing letters, place holder dots for SAS

# Custom Query

**Is our patient population getting healthier?**

**At any given time, what % of our patients are close to or at a given target**

# Targets

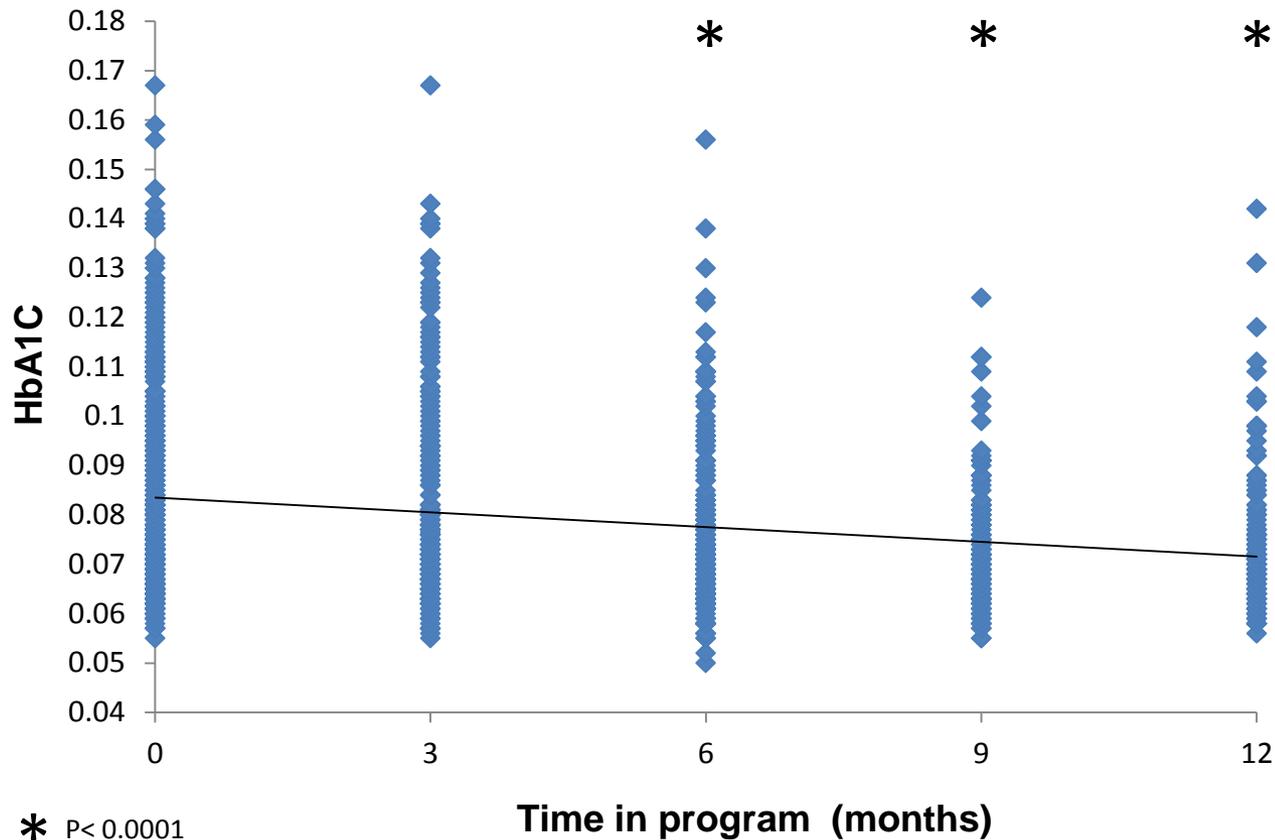
	OUT OF	CLOSE TO	AT OR BELOW
A1C (%)	> or = 8.0	7.1 – 7.9	< or = 7.0
LDL (mmol)	> or = 3.5	2.1 – 3.4	< or = 2.0
CHOL/HDL	> or = 5.0	4.1 – 4.9	< or = 4.0
BP (Systolic)	> or = 140	131 – 139	< or = 130
BP (Diastolic)	> or = 90	81 – 89	< or = 80

# Statistical Analysis

- SAS
  - Linear Regression – change over time
  - Dunnet's – change compared to baseline
  - $P < 0.05$
- Time points – 0, 3, 6, 9, > 12 months
- $n = 1798 / 1184$
- June 1<sup>st</sup>, 2011 – June 1<sup>st</sup> 2013
- Exclusion criteria – no Custom Form use or Custom Form used too frequently, no baseline data

# Results – HbA1C

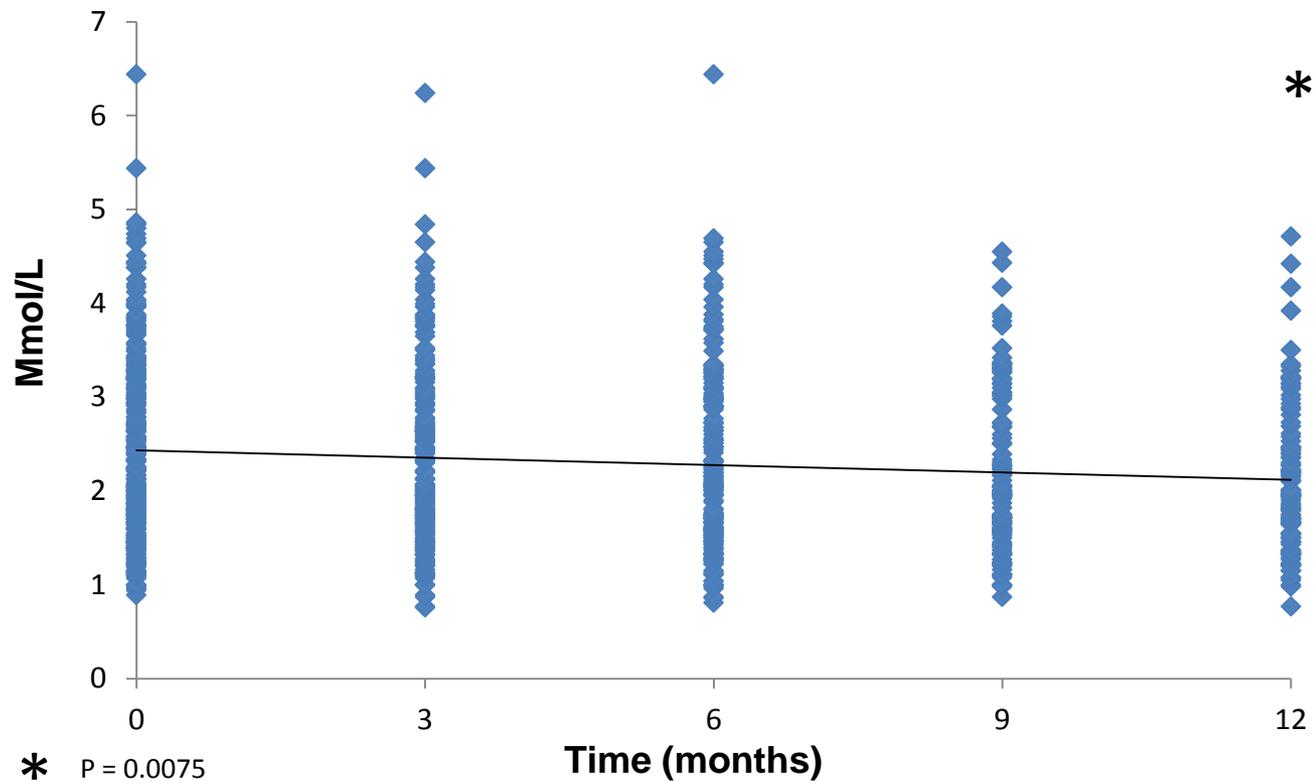
Is our patient population getting healthier?



\* P < 0.0001

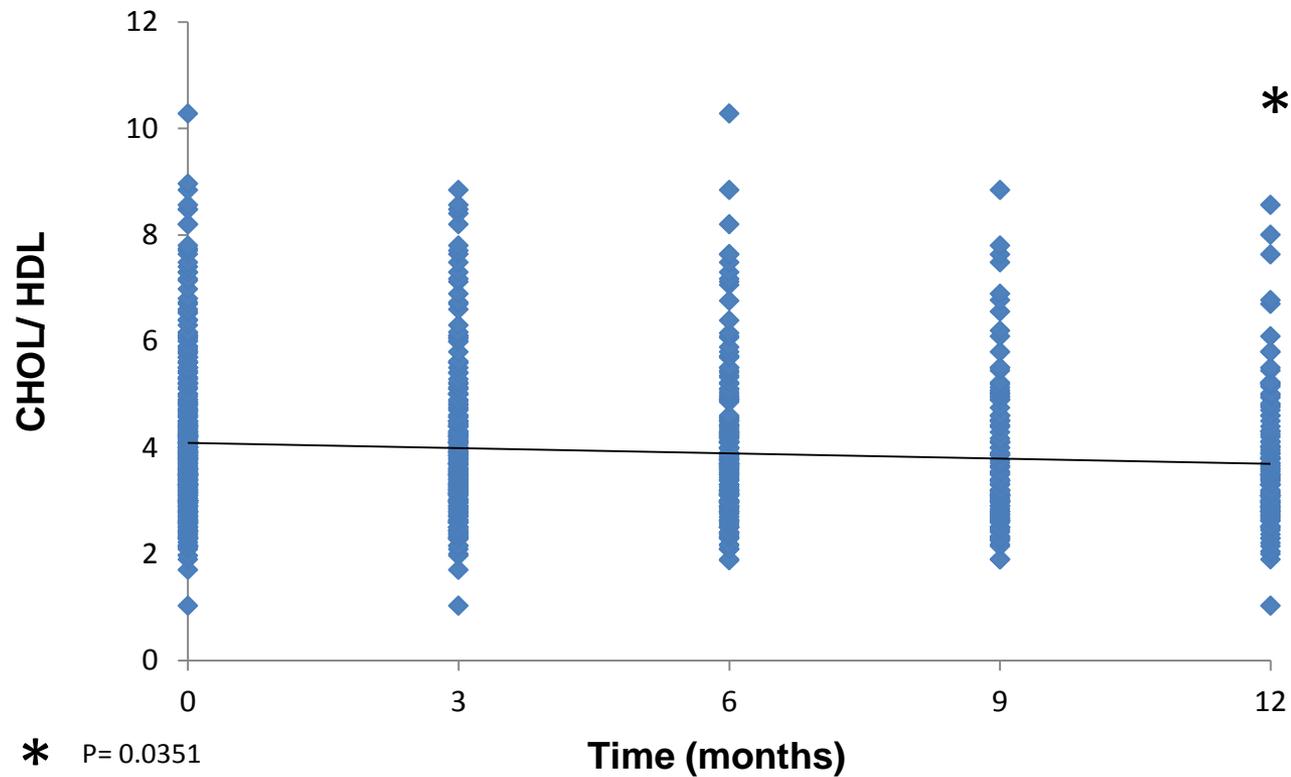
# Results – LDL

Is our patient population getting healthier?



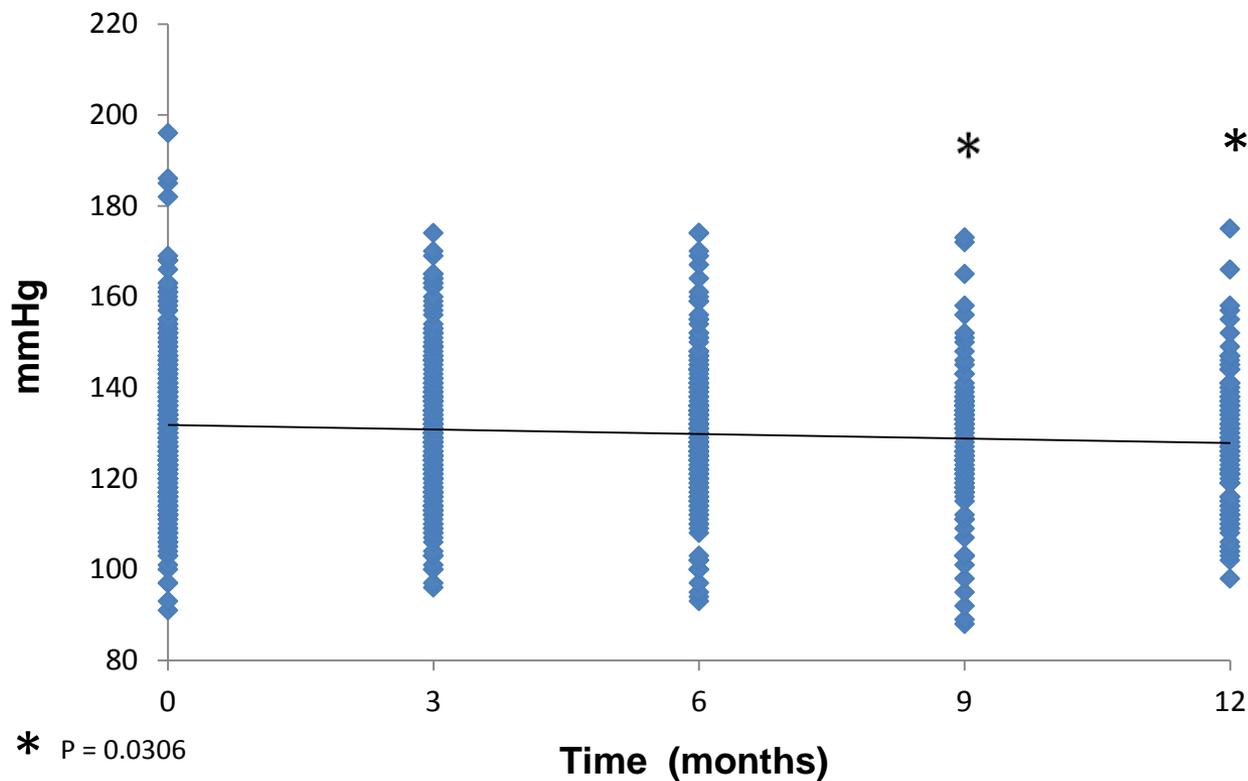
# Results – CHOL/HDL

Is our patient population getting healthier?



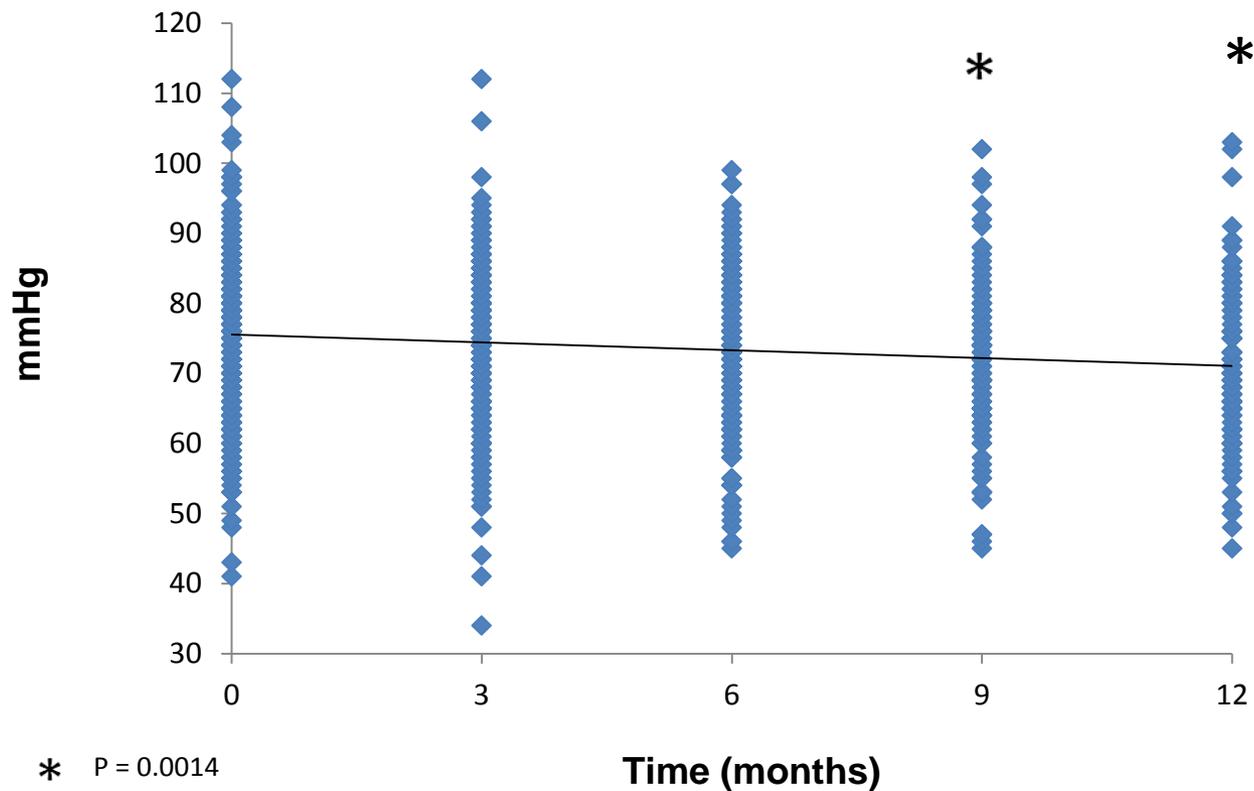
# Results – Systolic BP

Is our patient population getting healthier?



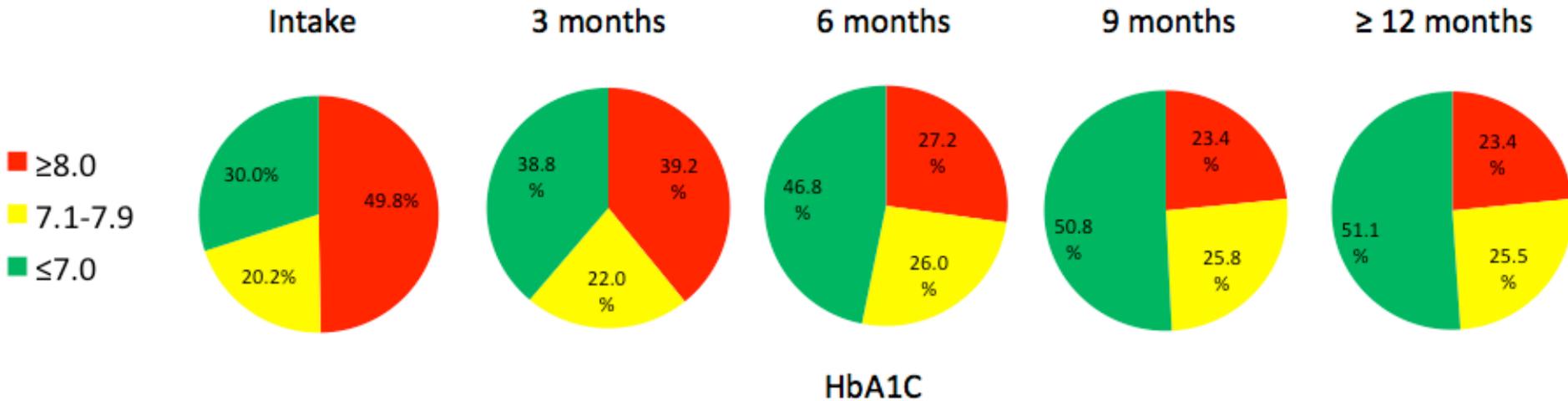
# Results – Diastolic BP

Is our patient population getting healthier?



# Results – HbA1C

% of patients close to or at target?



# Results – LDL

% of patients close to or at target?

Intake

3 months

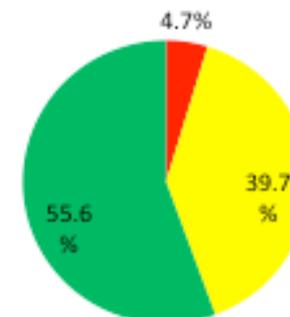
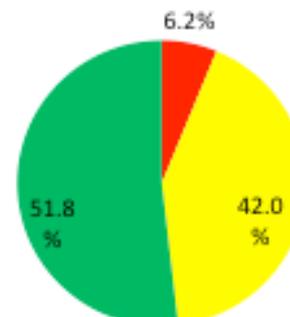
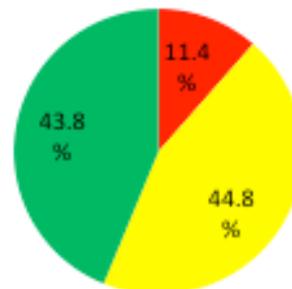
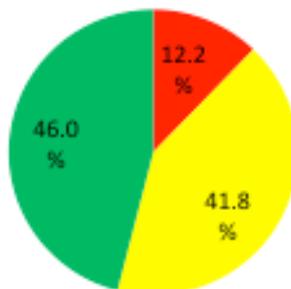
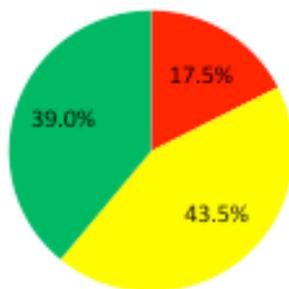
6 months

9 months

≥12 months

mmol

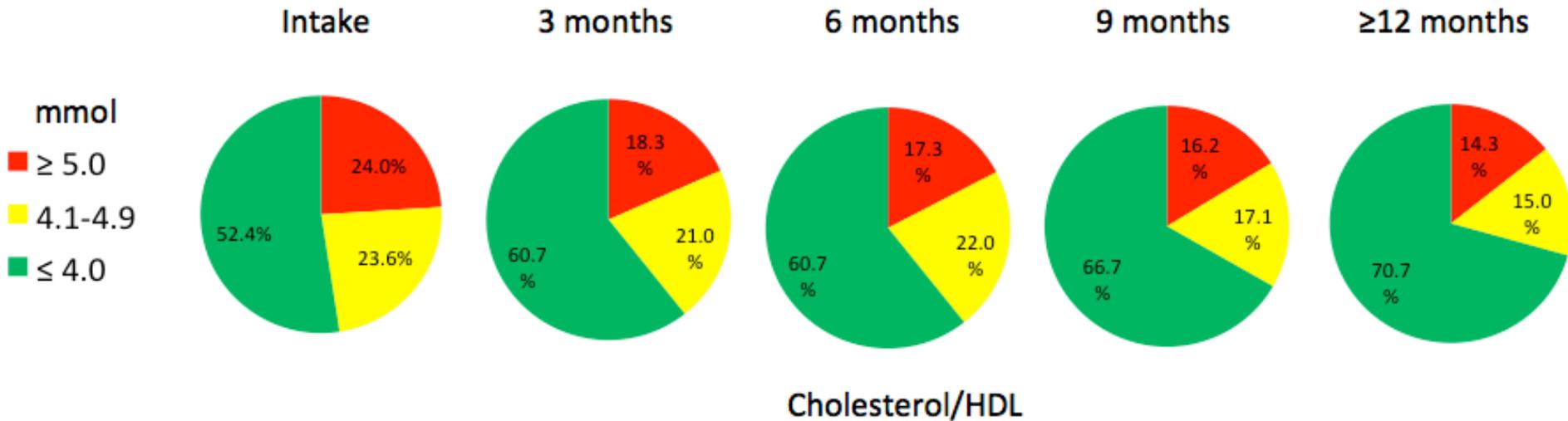
- ≥ 3.5
- 2.1-3.4
- ≤ 2.0



LDL

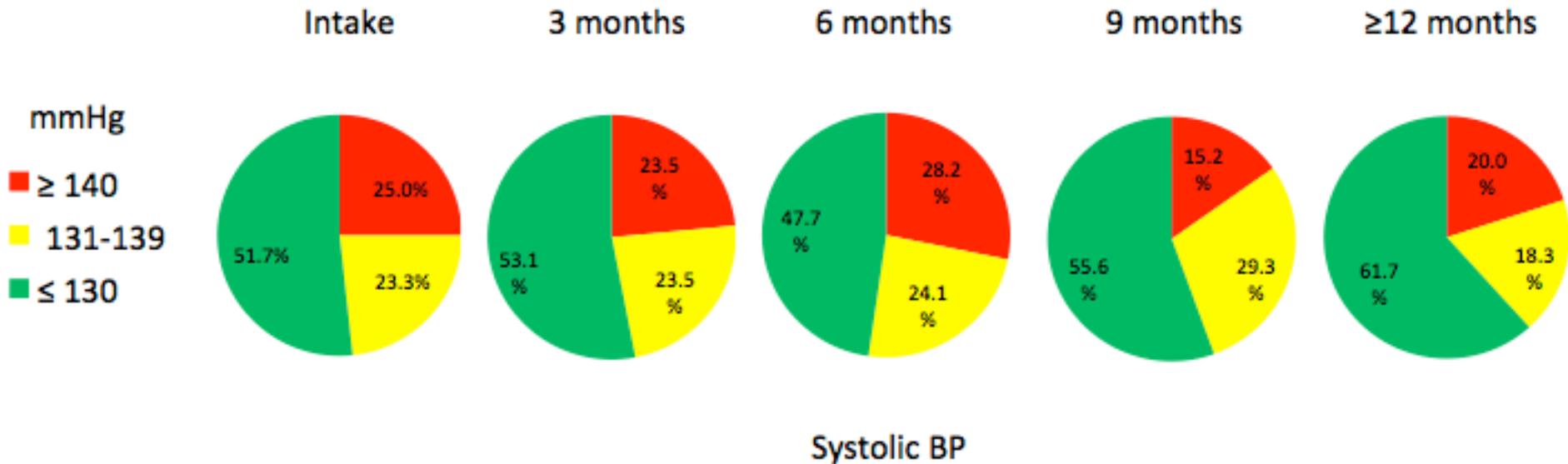
# Results – CHOL/HDL

% of patients close to or at target?



# Results – Systolic BP

% of patients close to or at target?



# Results – Diastolic BP

% of patients close to or at target?

Intake

3 months

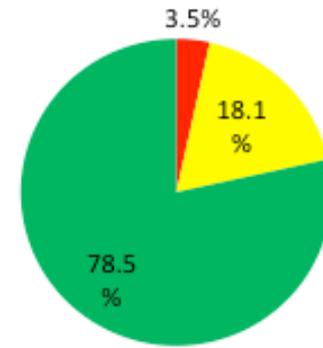
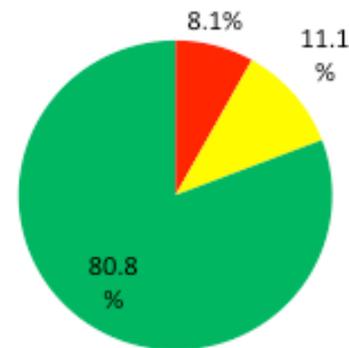
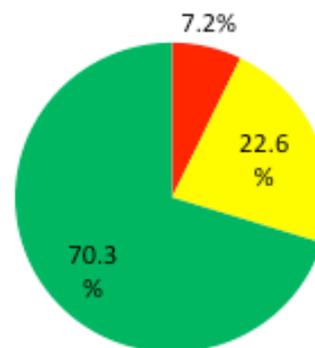
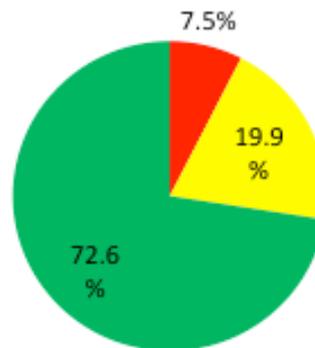
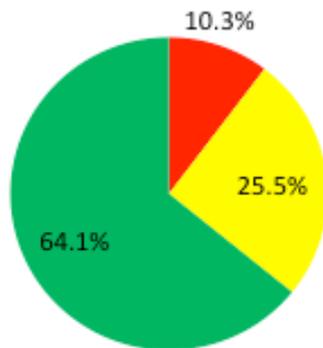
6 months

9 months

≥12 months

mmHg

- ≥ 90
- 81-89
- ≤ 80



Diastolic BP

	Baseline	6mo	> 12mo	6mo Change	12mo Change
<b>A1C</b>	<b>8.4%</b>	<b>7.6% *</b>	<b>7.3% *</b>	<b>- 0.8% *</b>	<b>- 1.1% *</b>
Vallis et al. 2005 1yr program – T2DM DEC edu	8.0%	N/A	7.0% *	N/A	- 1.0% *
Dove et al. 2009 2yr program – T2DM Group + indiv edu – RN, RD	6.8% new dx – 7.5%	N/A	6.7% new dx – 6.1% *	N/A	- 0.1% - 1.4% *
McGowan, 2011 6mo program – T2DM DEC edu – control group	7.1%	6.7% *	N/A	- 0.4% *	N/A
<b>LDL</b>	<b>2.43</b>	<b>2.33</b>	<b>2.09 *</b>	<b>- 0.10</b>	<b>- 0.34 *</b>
Vallis et al. 2005	3.54	N/A	3.48	N/A	- 0.06
Dove et al. 2009	2.43 new dx – 3.00	N/A	2.26 * new dx – 3.10	N/A	- 0.17 * 0.10
McGowan, 2011	2.76	2.58	N/A	- 0.18	N/A
<b>CHOL/HDL</b>	<b>4.09</b>	<b>3.95</b>	<b>3.67 *</b>	<b>- 0.19</b>	<b>- 0.42 *</b>
Dove et al. 2009	3.94 new dx – 4.92	N/A	3.67 * new dx – 4.66	N/A	- 0.27 * - 0.26
<b>Systolic BP</b>	<b>131.5</b>	<b>131.5</b>	<b>127.2 *</b>	<b>0.00</b>	<b>- 4.3*</b>
Dove et al. 2009	142.7 new dx – 143.3	N/A	139.8 new dx – 140.4	N/A	- 2.90 - 2.90
<b>Diastolic BP</b>	<b>75.8</b>	<b>73.3</b>	<b>71.6 *</b>	<b>- 2.5</b>	<b>- 4.2 *</b>
Dove et al. 2009	84.0 new dx – 91.1	N/A	81.8 * new dx – 83.6 *	N/A	- 2.2 * - 7.5 *

# Interpretation

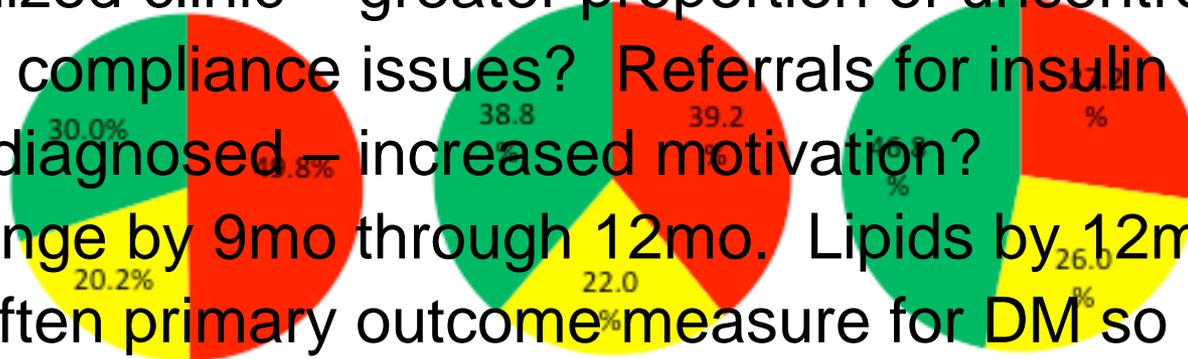
- Reduction in A1C by 6mo and through 9mo and 12mo  
*'Make timely adjustments to attain A1C target within 3 – 6mo'*

Intake

3 months

6 months

- Specialized clinic – greater proportion of uncontrolled DM – greater compliance issues? Referrals for insulin initiation
- Newly diagnosed – increased motivation?
- BP change by 9mo through 12mo. Lipids by 12mo.  
 A1C often primary outcome measure for DM so might be primary focus – CHOL and BP secondary?
- Ave BP close to target at baseline



# Limitations

- Pooled 12, 15, 18, 24 month data to single time point > 12 months
- Other DM measures – foot care, ocular exams, MH
- Labs – not always repeated every 3 months
- Not controlling for whether patient seen q 3mo or only once in the year
- No control group
- Data only as good as documentation consistency
- Labs don't tell full story

# Focus Group

- **Purpose:** measure patient satisfaction and assess diabetes care services
- **Inclusion criteria:**
  - DM dx
  - Enrolled in DCG > 3mo
  - Attended clinic at least once within past year
- PSS Search – results exported to Excel, random number assignment, lowest 14 numbers contacted and counted backwards until all participants recruited
- **Respondents:** 14 recruited / 9 participated (6 males; 3 females, average 50+ years)
- Focus Group and Patient Satisfaction Surveys

# Focus Group

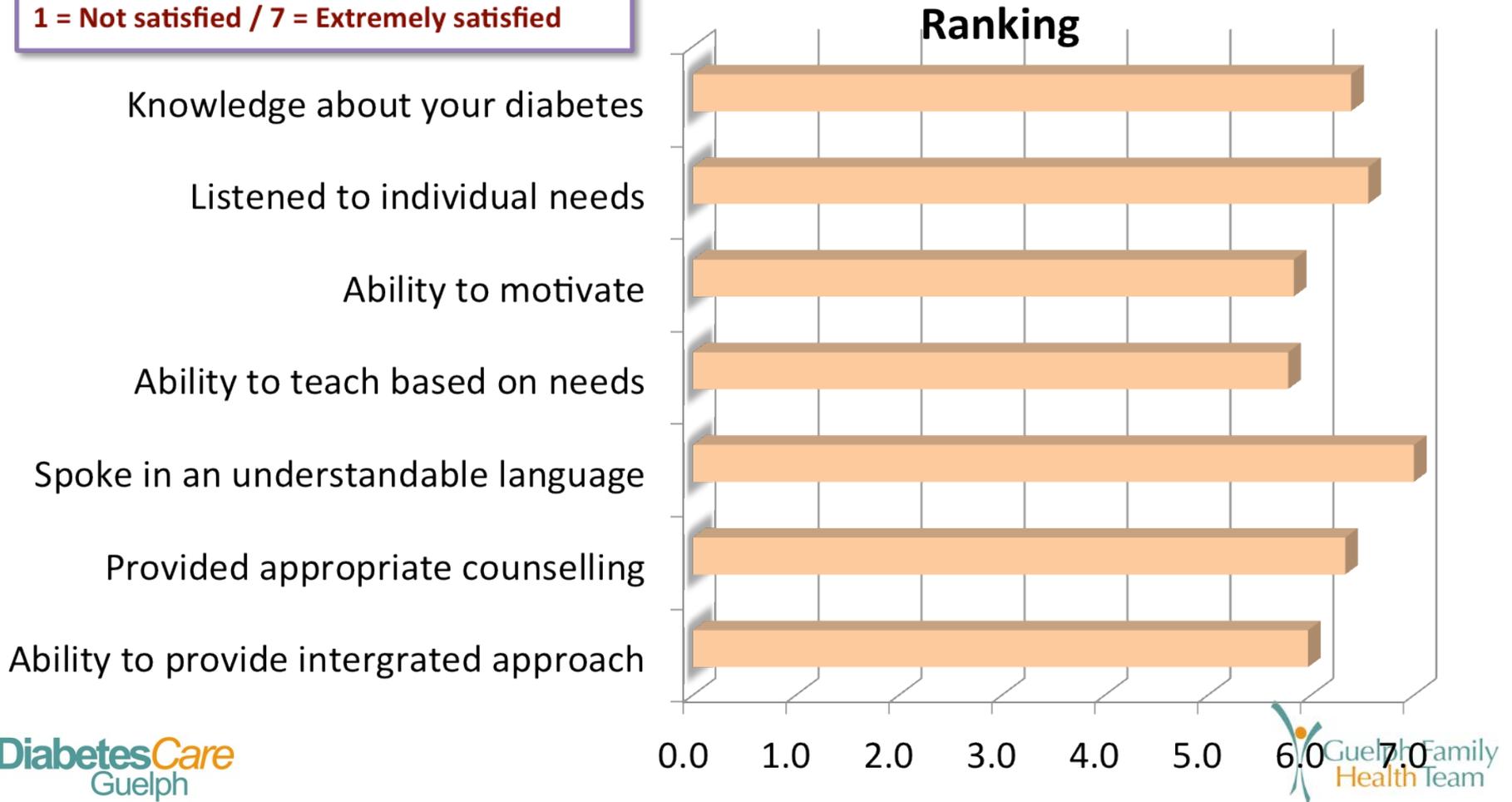
*How did you find your experience with the program?*

STRENGTHS	AREAS FOR IMPROVEMENT
Overall, very positive	Staff is not forceful enough/they do not push
Nurses are very knowledgeable about diabetes – decreased fear about taking insulin	Unaware of psychological aid service (stress, mental health) – “Craving Change”
Nutritionists assisted with reading and understanding labels and portion sizes & some provided recommendations for diet & lifestyle changes	All dieticians should provide recommendations – doesn’t want to be asked “what would you like to know/need help with?”
Exercise program is good	Negative experience with endocrinologist – too aggressive
Staff is very supportive and listens to everything you have to say – they explain the good & bad	Family members are negative – they do not want to be involved
Feel respected as individuals – the staff does not judge	
Staff that cares	
Approach of staff being the “food police” has improved over the years	

# Focus Group

*Rank the members of your DCG team in the following:*

**1 = Not satisfied / 7 = Extremely satisfied**



# Focus Group

*Rank the members of your DCG team in the following:*

**1 = Not satisfied / 7 = Extremely satisfied**

Coordination of care across programs

Single point of contact

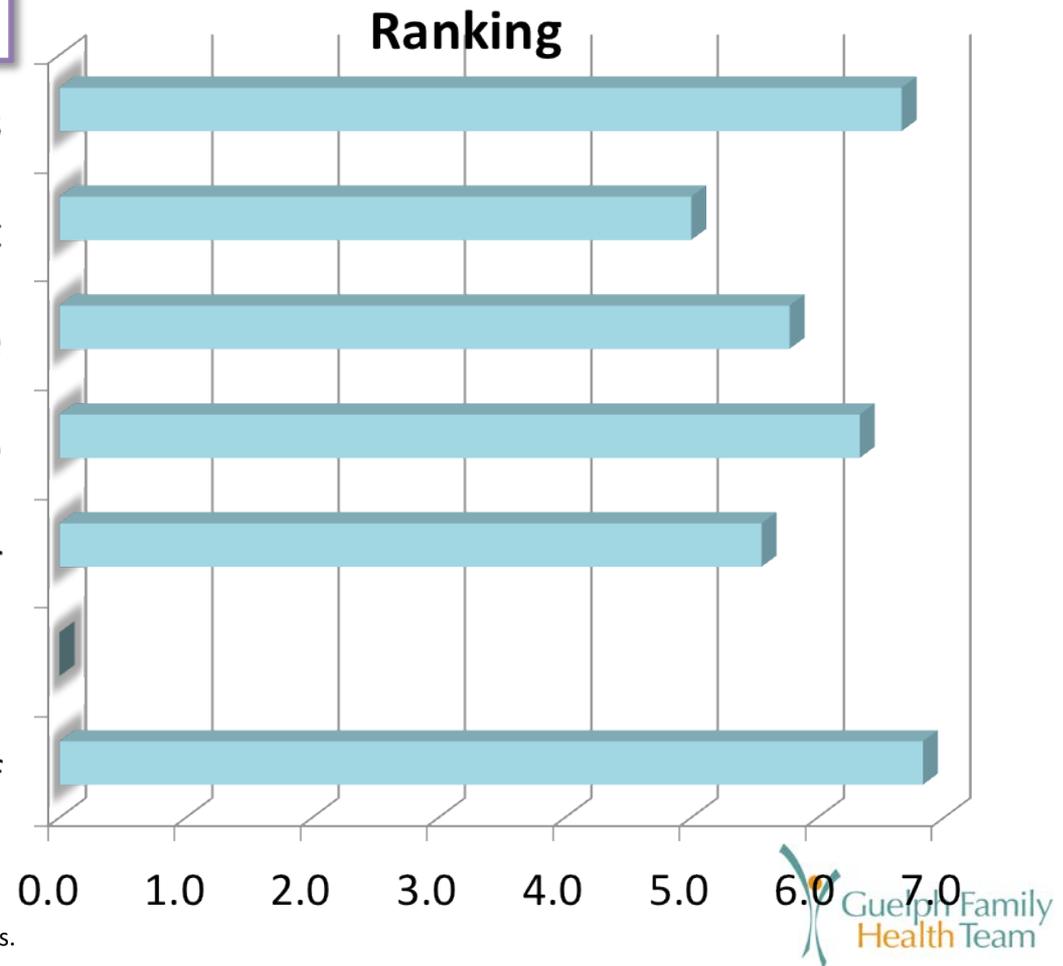
Shared different services available

Recommended the next service

Ability to bring all services together

Was your champion\*

Felt well taken care of



• Champions were not ranked but listed: nurses, dieticians and doctors. All were rated highly.

# Focus Group

*Has the program helped you reduce stress/remain calmer?*

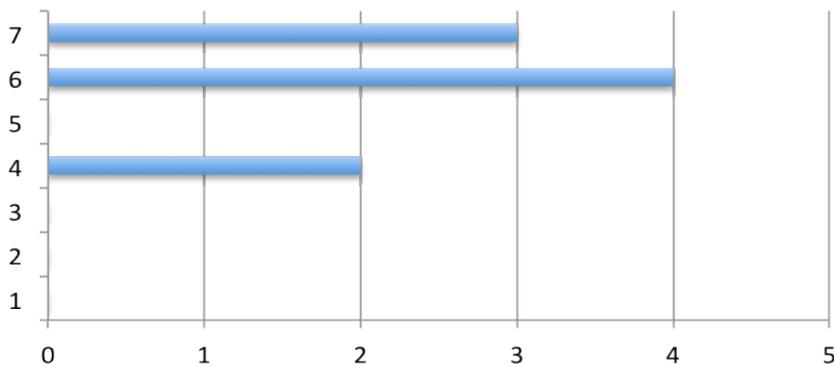
## Stress level

- “Would be lost with the program” – keeps her on track / on the straight and narrow
- Thanks to the staff, she was prescribed the appropriate drug for her other health issues
- Without the program, he wouldn’t be as healthy as he is now
- If the program didn’t exist, he would not know any different – i.e. high blood sugar was normal to him
- “Gets more help from the center than from her own family doctor”

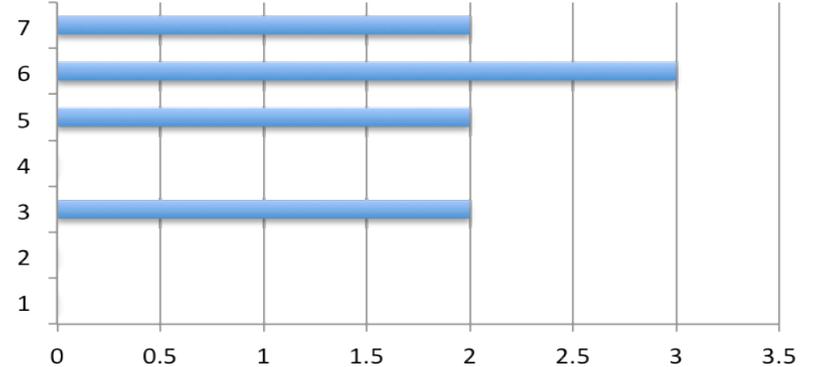
# Satisfaction Survey

*Thinking about what you learned in the Diabetes Care Guelph program, how has it impacted the following areas of your life?*

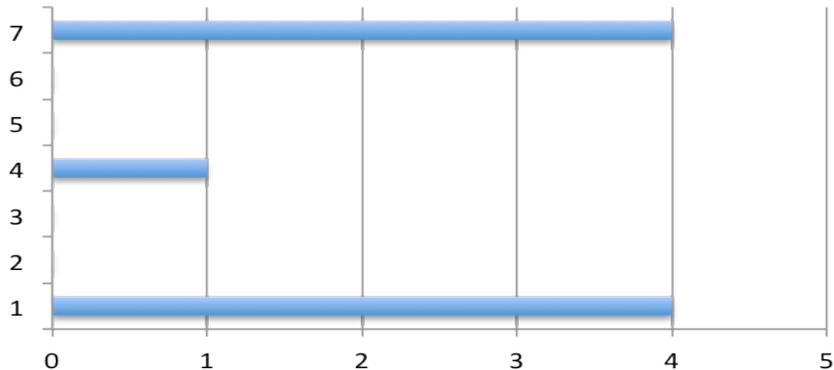
### Diet Planning



### Exercise/Physical Activity Level



### Smoking

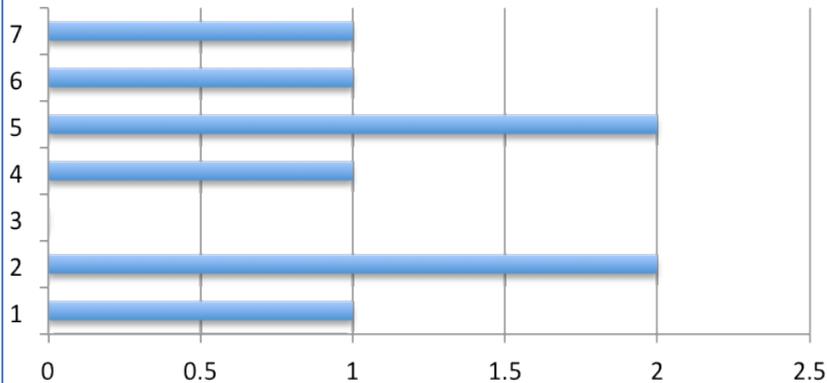


**1 = Not satisfied / 7 = Extremely satisfied**

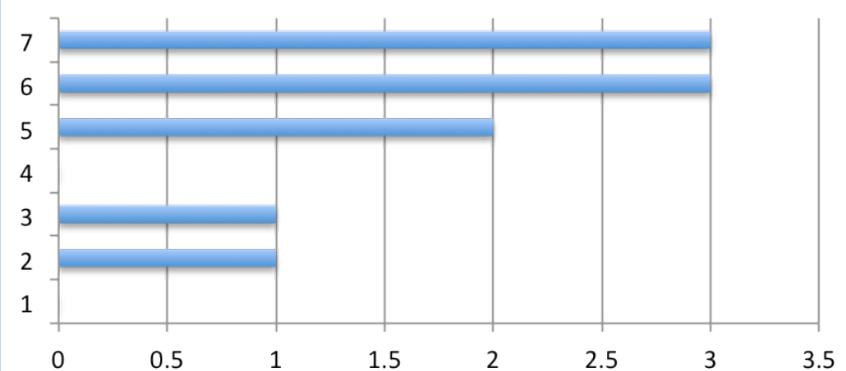
# Satisfaction Survey

*Thinking about what you learned in the Diabetes Care Guelph program, how has it impacted the following areas of your life?*

## Coping with Stress/Mental Health Support



## Ability to Self-Manage your Diabetes



**1 = Not satisfied / 7 = Extremely satisfied**

# Key Findings

- On average, patients very satisfied with clinic
- The diabetes care team rated highly – attitude, disease knowledge, motivation, teaching
- Most respondents prefer to receive info via email and website
- Following areas still need improvement:
  - Exercise training program
  - Foot care services
  - Awareness of services
  - Coping with stress/mental health

# Key Findings

- Program developed positive outlook for majority
- Most would refer family or friend
- The Diabetes Education aspect had the most impact and value on the patient's diabetes control followed by diet management and education materials
- 50% wanted more satellite clinics opened (option for weekend appointments and extended hours)
- Patients' blood sugar level improved the most since involved in the program

# Future Directions

- Increased use of patient experience surveys
- Assess self-management, self-efficacy, stress management
- Separate 12mo from 18mo and 24mo to see long-term effects of changes
- Question definition – what do we really want to track in a meaningful way?
- New Custom Form
- Data Dictionary
- Charting in different clinics/EMRs

# Acknowledgements



Gwen Kostal

Jess Voll

Jeff Tarr

Lyn Hillyer

Justin Wolting and Jasmine Zhu

Outcomes Committee



# Guelph Family Health Team

**THANK YOU**

# Fast Facts

DCG services ~ 6% of Guelph's population

- Total UNIQUE patients from June 2011 to June 2013 – 3,672
- Data based on ~ 32% of clinic population
- Total encounters from June 2011 to June 2013 – 21,478 visits
- New referrals from June 2011 to June 2013 – 2,264

84% of patients access RN/RD team – 16% access a single HCP of which: 36% access RN only

23% access Kin

25% access RD

3% access SW

4% access Foot care

9% access Endo