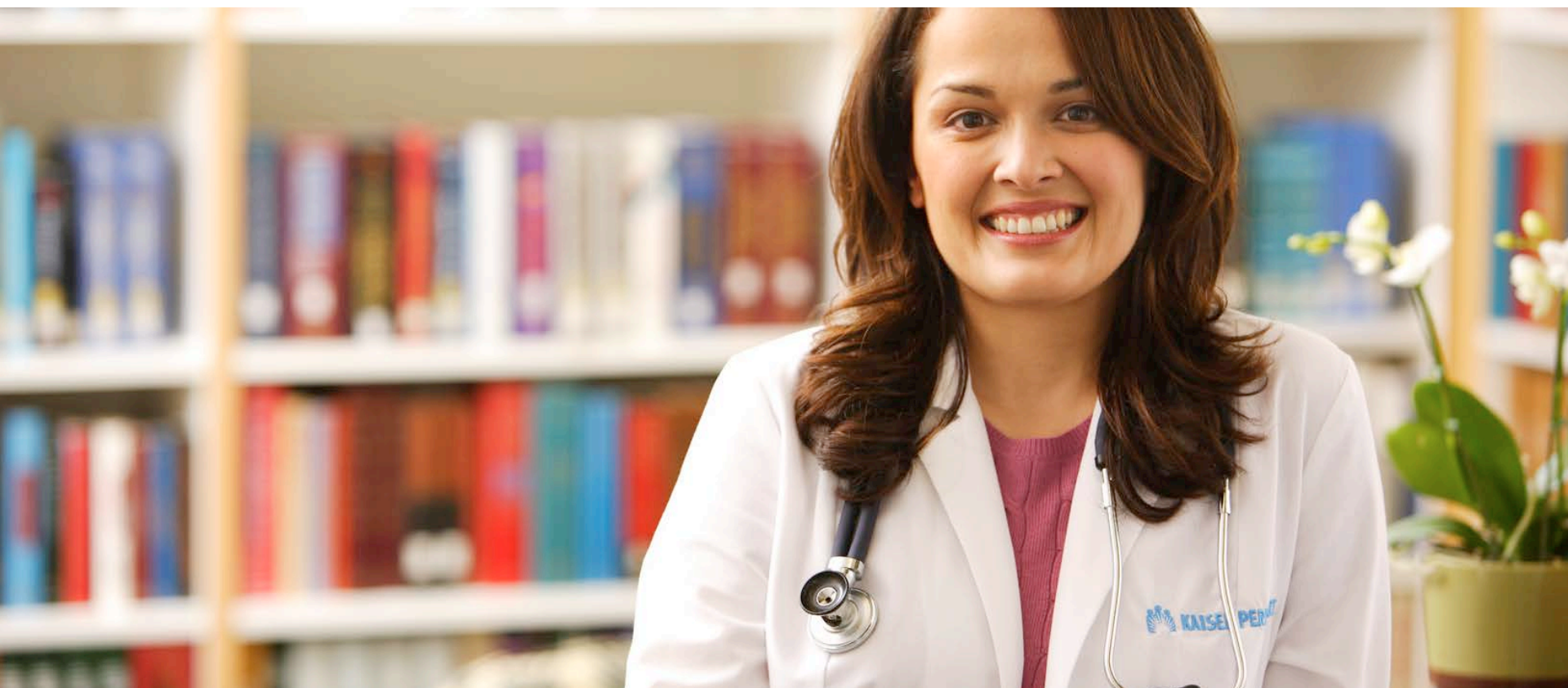


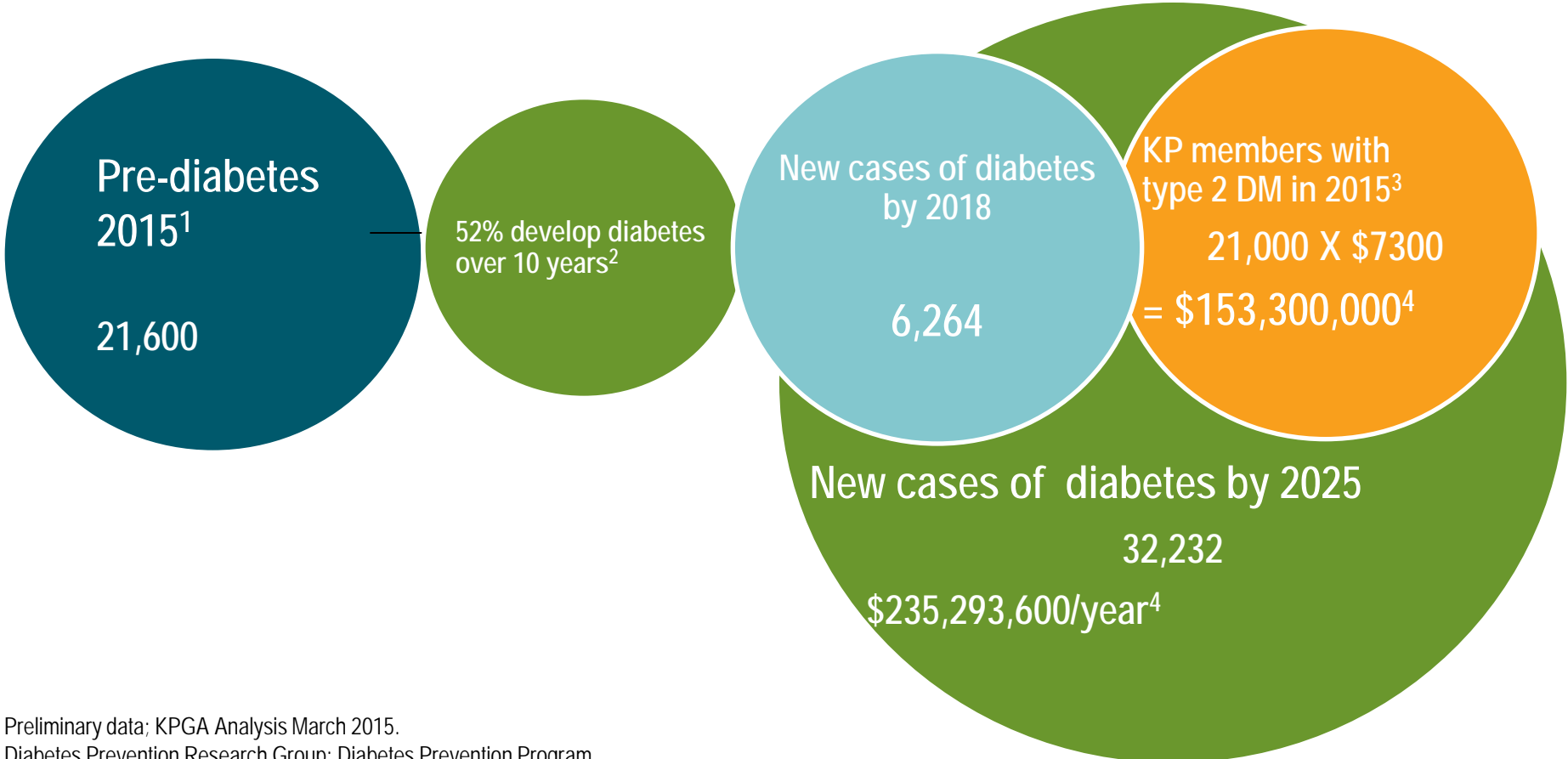
Bending the Trend: Kaiser Permanente's Approach to Diabetes Prevention

Miriam Bell, MPH, Director, Center for Care Partnership

NCHICA: Navigating the Transition to Value
March 16, 2016



KP Diabetes Burden to Surge Over Time



1 – Preliminary data; KPGA Analysis March 2015.

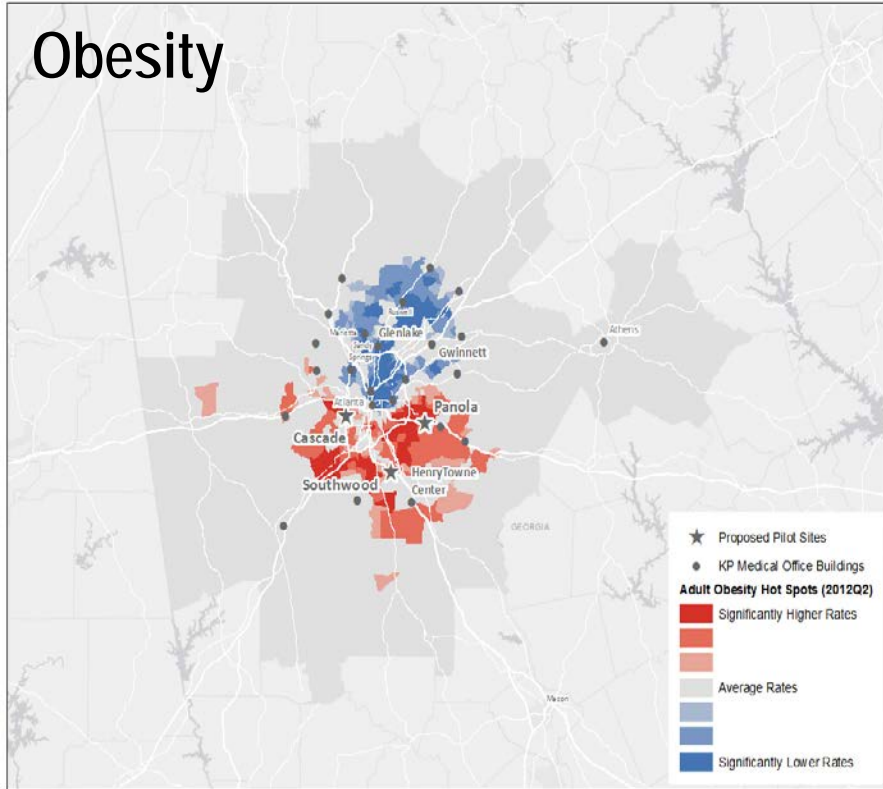
2 – Diabetes Prevention Research Group; Diabetes Prevention Program

3 – Preliminary data; CMI Analysis, as of Dec 31 2013. CORE KP HEDIS Diabetes cohort, minus expected 10% of Type 1 diabetes per CDC national prevalence

4 – Based on average annual medical expenditure estimates, Vojta et al, Hlth Aff, Jan 2012. Effective Interventions for Stemming Diabetes and Pre-Diabetes (513,375 x \$7300)

Adult Obesity & Pre-diabetes in KP Georgia

Obesity

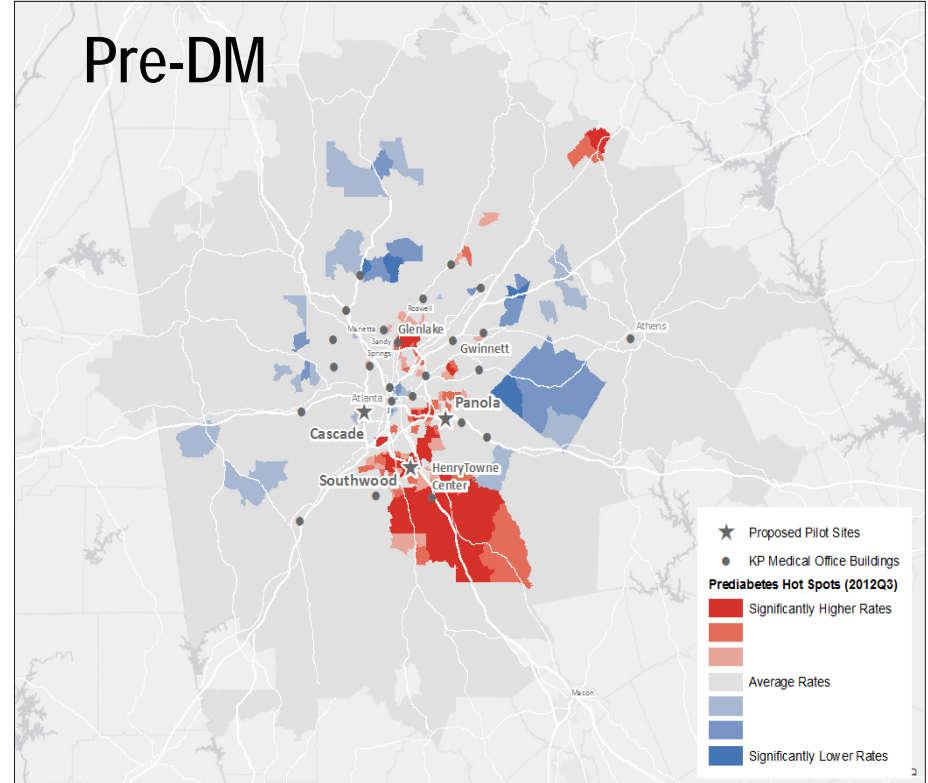


Obesity

Blue zone: 21-23%

Red Zone: 45-50%

Pre-DM

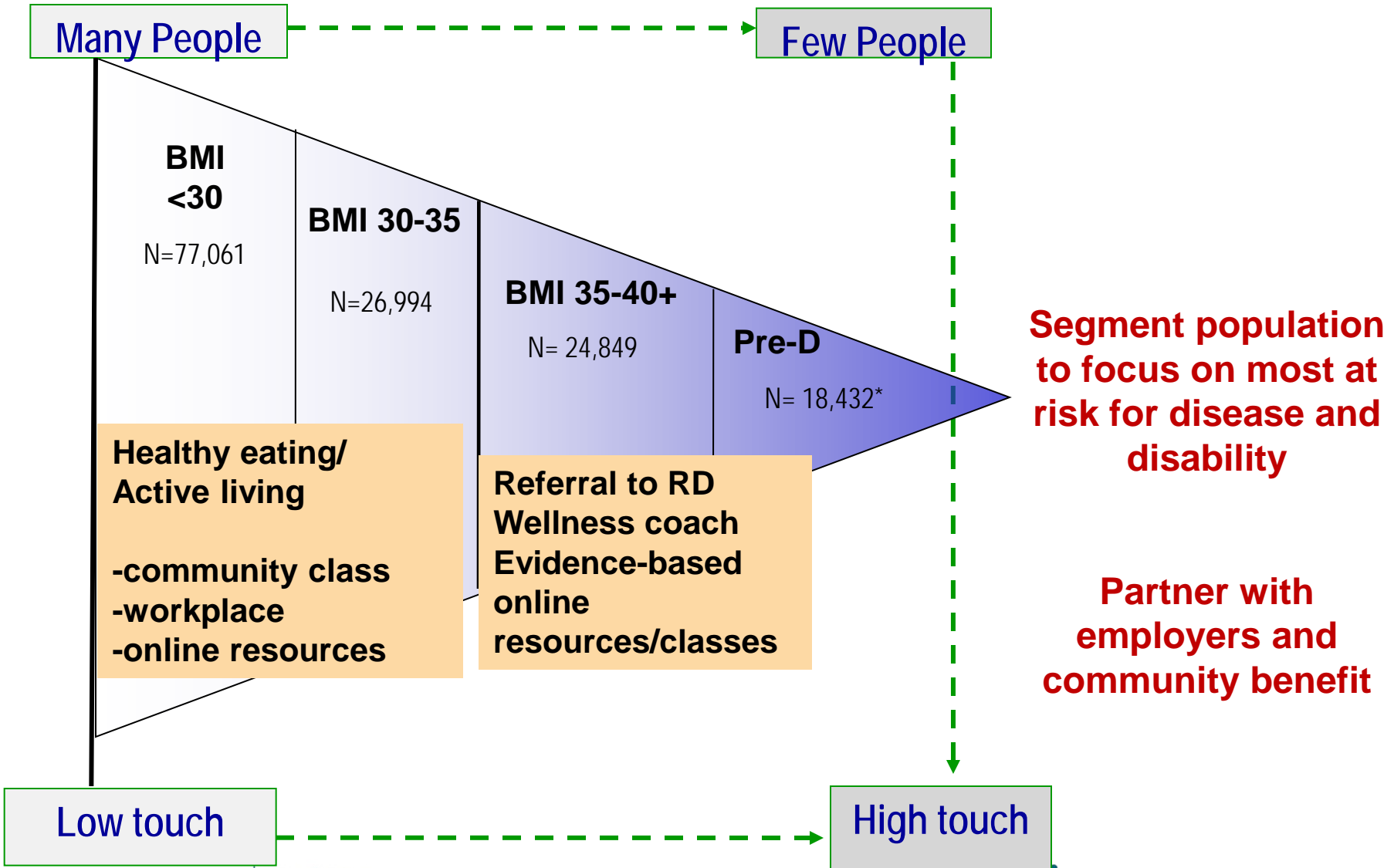


Pre-diabetes

Blue zone: 3-4.5%

Red Zone: 6-7%

"The Science" – KP Georgia Disease Burden Targeted Programming Based on Risk and Modality



The Team

LaJune Oliver, MD

Miriam Bell, MPH

Hien Dang, MPH

Ann Whitaker, RD

Kathryn Harrison

Emiko Hiraga

Cascade MOB- *Nakato Kibuyaga-Travis,
MD (Lead Physician)*

Henry Towne Center- *Sylveria
Olatidoye, MD (Lead Physician)*

Panola MOB- *Daniel Lopez, MD (Lead
Physician)*

Southwood MOB- *Ingrid Desir-Joseph,
MD (Lead Physician)*

care management | institute

CMI

Trina Histon, PhD

Maile Jedlinsky, MBA

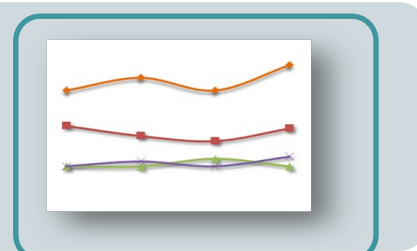
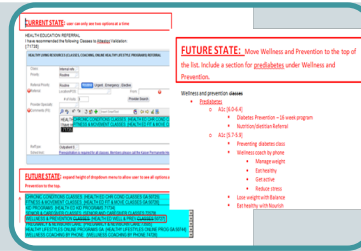
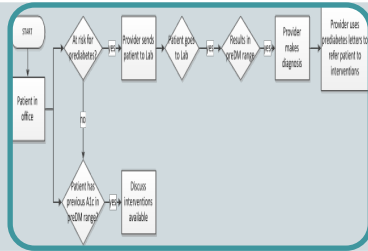
Lori Friedman, MPH

Ana Jackson, PhD

Where we started: KP-GA demonstration aims

Aim	Primary Drivers	Secondary Drivers	Initiatives
<p>Improve health outcomes in pre-diabetes and obesity and increase levels of physical activity in adult members and KP employees.</p>	<p>1) Person with obesity with co-morbidities (HTN, diabetes, degenerative joint disease (BMI > 35): Manage to live healthier with chronic conditions</p>	<p>Medical Weight Management</p> <ul style="list-style-type: none"> • Increase screening rate for members at risk for DM • Provide multiple pre-DM intervention modalities • Increase access to program modalities for 8-20% of pre-DM members • Scale pre-DM intervention modalities from 4 demonstration MOBs to region 	<ul style="list-style-type: none"> • Group Appt for Obesity • Medications & Obesity Clinic • VLCDs/LCDs (Optifast) • Bariatric Surgery <ul style="list-style-type: none"> • In person DPP (KP, community, workplace) • In person single session pre-DM class • Online Omada Prevent (DPP) • Telephonic Wellness Coach • Care Delivery: RD visit
	<p>2) Pre-Condition/At risk for Diabetes: Bend the trend for DM in KP GA by addressing pre-diabetes and reducing the conversion to diabetes</p>	<ul style="list-style-type: none"> • Increase referrals to KP and community weight mgmt and PA programs • Increase referrals to wellness coaching 	<ul style="list-style-type: none"> • KP Healthy Workforce Programs • KPGA Weight Mgmt Classes • GA Community Weight Mgmt Classes • KPGA Physical Activity Classes
	<p>3) High Risk Members: Slow or halt the progression to chronic disease by addressing those with BMI > 35 (high touch)</p>	<ul style="list-style-type: none"> • Design and leverage “know your risk” poster to increase engagement in healthy behaviors • Increased referrals to Maintain Don't Gain (year-round messaging) starting with employees and moving to members • Leverage community, online engagement 	<ul style="list-style-type: none"> • KP Healthy Living Classes • Balance Online Program • Everybody Walk • YMCA programs, Weight Watchers, Community
	<p>4) Moderate and Lower Risk Members: Slow or halt the progression to higher BMI by addressing those with BMI 30-35. “Maintain don't gain” for members BMI < 30</p>		

KP-GA has been building the infrastructure and capacity for Pre-DM screening, referral, and intervention



Step 1: Established and invested in DPP capacity

Step 2: Used PI and systems design to build and test CQI pathway. Implemented POE Screening Decision support & scaled outreach

Step 3: Build KPHC Referrals to Pre-DM Resources (2016)
Test & Deploy DPP resources (online and in-person)

Step 4: Develop tracking system to monitor and learn from outcomes (2016)

Performance to Goal

<p>POE care gap goal: 80% Current: 47.5% for screening 43% for rescreening (Nov)</p>	<p>Goal: 90-100% Current: 68% for efforts at Panola, Cascade, HTC, SW</p>	<p>Goal: 8 - 20% Current: DPP: 332 enrolled Omada: 452 participants have completed or in process since 11/13. Coaches: June -Dec: 33 referrals (40% uptake)</p>	<p>Goal: 5-7% weight loss Current: In-person DPP 39% (93) achieved goal by wk 16; Omada: 45% (141) achieved goal by wk 16 and 43% at wk 52</p>

Prediabetes POE Screening Criteria

Group 1: Screening

- Those at-risk with normal lab value at last lab test ($A1c < 5.7$) and that lab test was >3 years ago **or** those at-risk who have never been tested. Exclude anyone w/ DX of DM, prediabetes, and current pregnancy.
- If age >45 : test; if normal results, retest every 3 years
- If age 18-45, last BMI >30 **and has one of the risk factors below**: test; if normal results, retest every 3 years
 - **Risk factors**
 - Physical Inactivity: <150 min
 - First-degree relative with diabetes
 - Member of a high-risk ethnic group: Black/African American, Latino, Native American, Asian American, Pacific Islander
 - Diagnosis of gestational diabetes, polycystic ovarian syndrome (PCOS), Metabolic Syndrome, HTN, HF, CAD, or CKD.
 - Last HDL cholesterol level < 35 mg/dl (0.90 mmol/l) and/or a triglyceride level > 250 mg/dl (2.82 mmol/l)
 - Other clinical conditions associated with insulin resistance (e.g., severe obesity [defined as BMI ≥ 40], acanthosis nigricans, adhesive capsulitis, hyperinsulinemia)

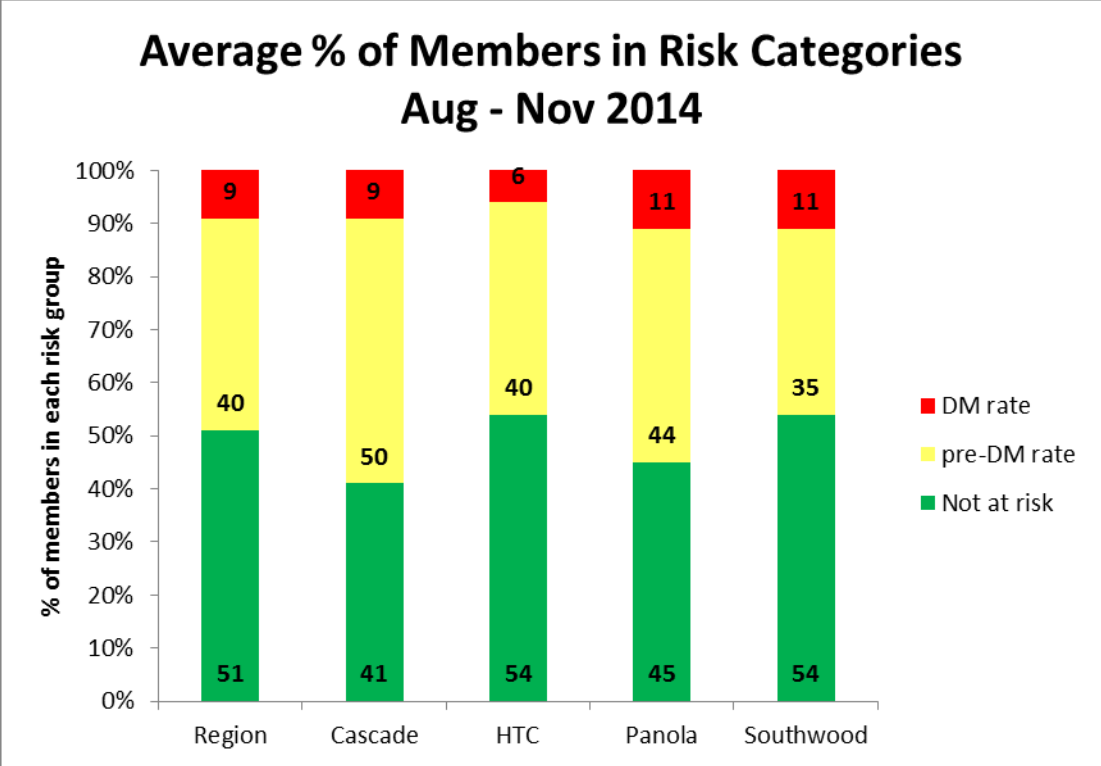
Group 2: Retesting

- Those with past pre-DM lab value ($A1C \geq 5.7\%$). Exclude anyone with diagnosis of diabetes and current pregnancy.
- **Screening frequency according to risk**
 - Red: every 1 year
 - Yellow: every 2 years
 - Green: every 3 years

BMI A1c	Missing	<25	25-29	30-34	35+
5.7-5.8	0.0%	0.1%	0.1%	0.1%	0.4%
5.9-6.0	0.5%	0.4%	0.4%	0.9%	1.4%
6.1-6.2	1.8%	0.8%	1.9%	3.2%	4.3%
6.3-6.4	6.4%	6.7%	12.6%	12.5%	15.7%

- Estimated 1 year incidence of DM by BMI and A1c category

About 50% of those screened are Pre-DM (42%) or DM (9%)



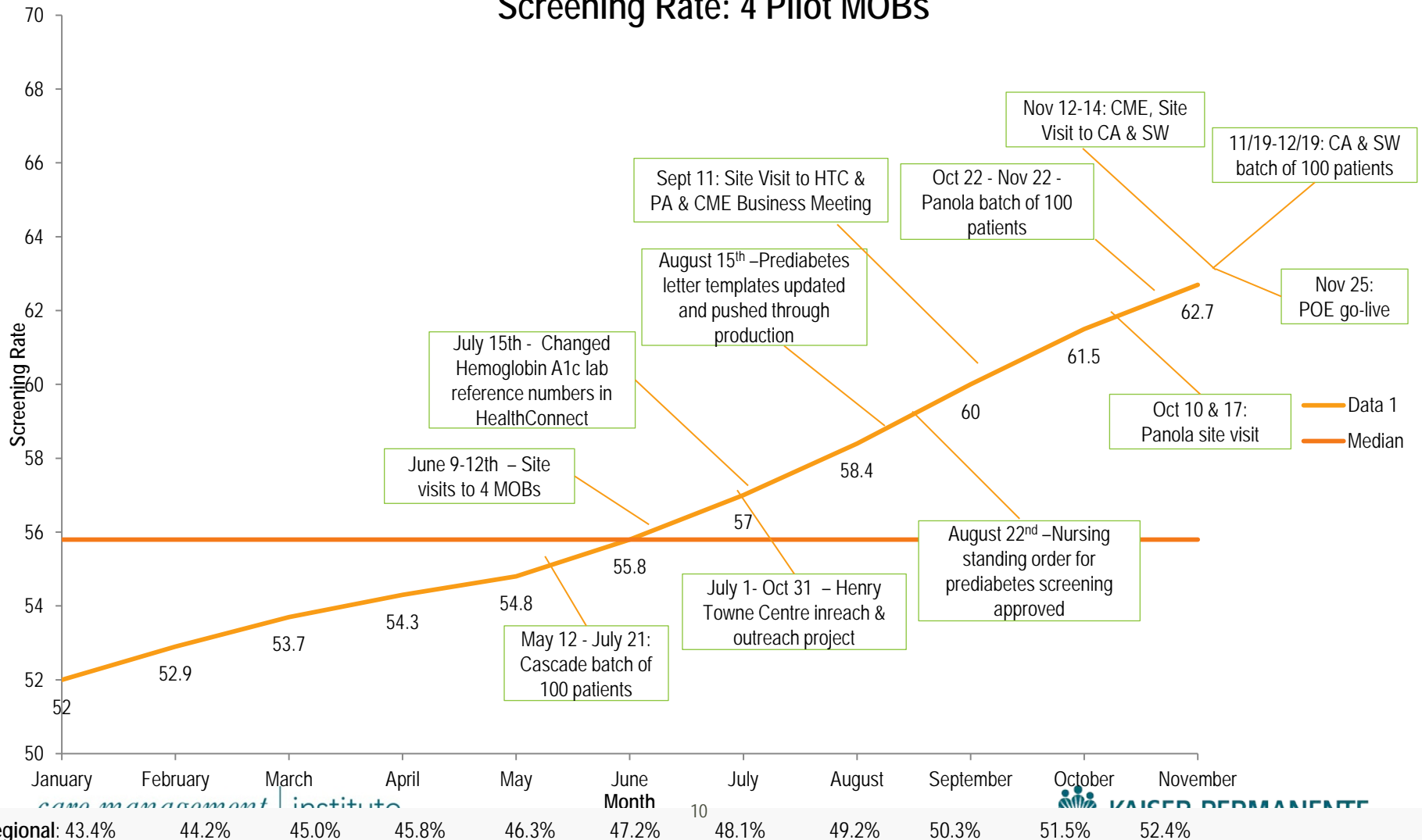
On average, 663 members per month tested in pre-DM range and 147 members per month tested in DM range in the region between Aug – Nov 2014.

At current screening levels, KP-GA would expect to identify about 8,230 pre-diabetic members (of the total 27K predicted pre-DM members) in 2015.

Assuming 10-20% uptake, demand for pre-diabetic interventions to total 800-1600 in 2015.

We have seen screening rates rise at the 4 MOBs....

Pre-DM Demonstration Journey Screening Rate: 4 Pilot MOBs



DPP and Omada have been well-received and effective

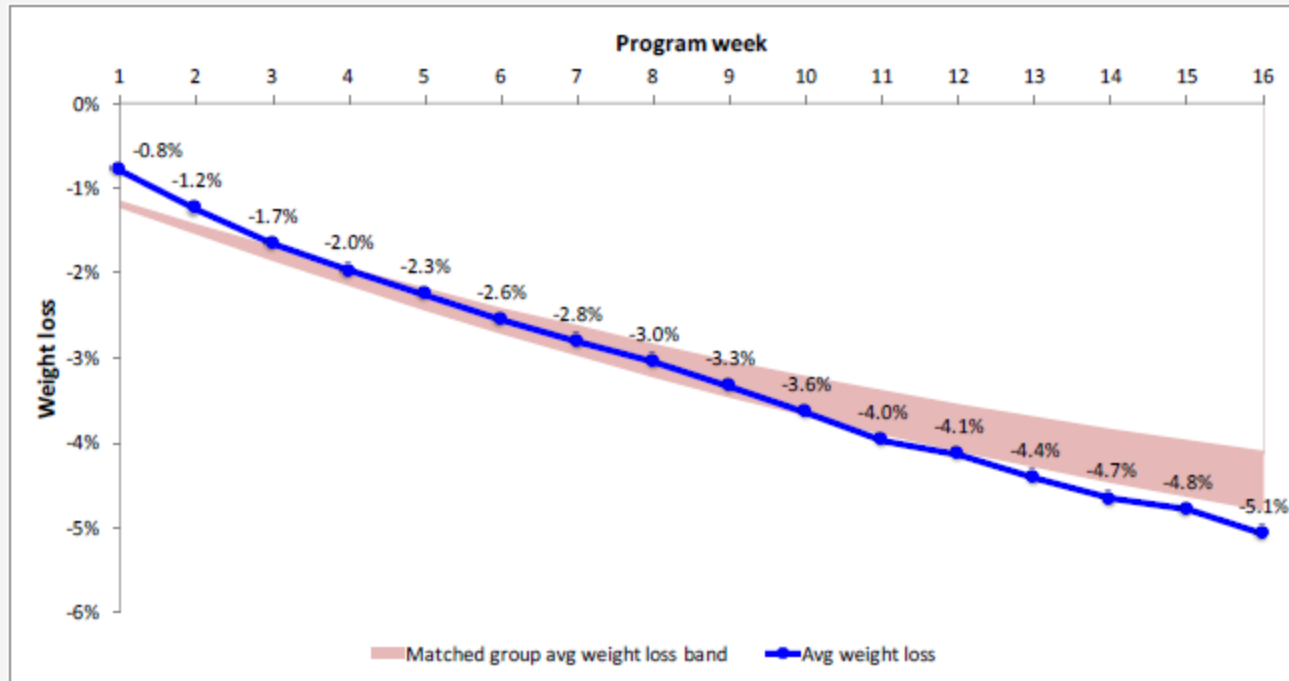
	In person DPP	Online DPP (Omada Prevent)
Start date	July 2014	Oct 2013
# of Enrollees	182 (156 attended \geq 1 class)	465
Completed at least 4 classes	127 people (81%)	409 people (91%)
Completed at least 9 classes	97 people (62%)	354 people (87%)
Lost 5% of starting weight	52 people (54%)	185 people (41%)*

KPGA Prevent Participant Outcomes

Outcomes

Core Weight Loss Outcomes

- We see better than expected numbers, with KPGA outcomes exceeding matched cohort performance



- The blue trend line represents the average weight loss of all program starters that have weighed in during that current week
- The red shaded area represents the expected performance (95% confidence interval) of client participants when compared to a matched cohort group based on age, gender, and other key factors

KPGA Projected Risk Reduction

Outcomes

KPGA Projected Risk Reduction*

- Projected risk reduction by weight-loss range shows a significant impact at the individual participant level, with 40 participants reducing their risk for developing type 2 diabetes by 85%.

Weight-Loss Range	No. of Participants	Projected 3 year risk reduction ¹
0 - 3%	80	35%
3 - 5%	56	38%
5 - 7%	51	54%
7 - 10%	50	64%
10%+	40	85%

* Assumes week 16 results will stay constant out to week 26

1 - Maruthier NM, Ma Y, Delahanty LM, et al. Early responses to preventative strategies in the diabetes prevention program. J Gen Intern Med. 2013;28(12):1629-36.

Lessons and Challenges

- Ensuring there are enough DPP classes across the region to meet demand
- Targeting works: we're reaching members with both pre-DM and DM
- Members like the resources that are offered to help them make behavior changes
- Members who utilize the pre-DM are losing weight!
- 80% of participants lost some weight and 52% lost 5% or more which reduces risk for conversion to diabetes

Questions?



Miriam T. Bell, MPH
miriam.t.bell@kp.org