Integrated Healthcare Association National Pay for Performance Summit 2011

Medication Adherence: A Study in Coordinated Diabetes Care

California Collaborative Adherence Project

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Agenda

- **CCAP Background and Objectives**
  - Why CCAP? The Impact of Medication Non-Adherence
  - Overview of CCAP Intervention Design
  - Phase 1 Findings to Date

- **Santé Experience**
  - Implementation Planning
  - Results to Date
  - Lessons Learned

Non-Adherence: The Need for Action

- California Pay for Performance Clinical Quality Results (MY 2008)[1]

Measure	Avg Rate	HEDIS 75th Percentile
Patients with Cardiovascular Conditions: LDL-C < 100mg/dL	54.9	65.5
Diabetes Care: LDL-C < 100 mg/dL	37.0	50.5
Diabetes Care: HbA1c < 8%	45.8	(n/a)

- Patients prescribed self-administered medications typically take less than half the prescribed doses[2]
- Retrospective studies associate medication adherence with utilization
  - Lower level of adherence with antidiabetic, antihypertensive, and antihyperlipidemic medications was associated with increased all-cause hospitalizations[3]
  - Higher level of adherence with antihyperlipidemic medications was associated with significant reductions in all-cause and CV-related hospitalizations and emergency department visits[4]

CCAP: Chronic care quality project designed and implemented by Pfizer Inc based upon discussions between Integrated Healthcare Association, California Association of Physician Groups, Pacific Business Group on Health, and Pfizer

[1] Integrated Health Care Association .Pay For Performance (P4P 2008 Results Report (August 2009). Available at http://www.iha.org/pdfs_documents/related_resources/P4P%202008%20Results_Exec%20Summary.pdf. Accessed 12/21/10

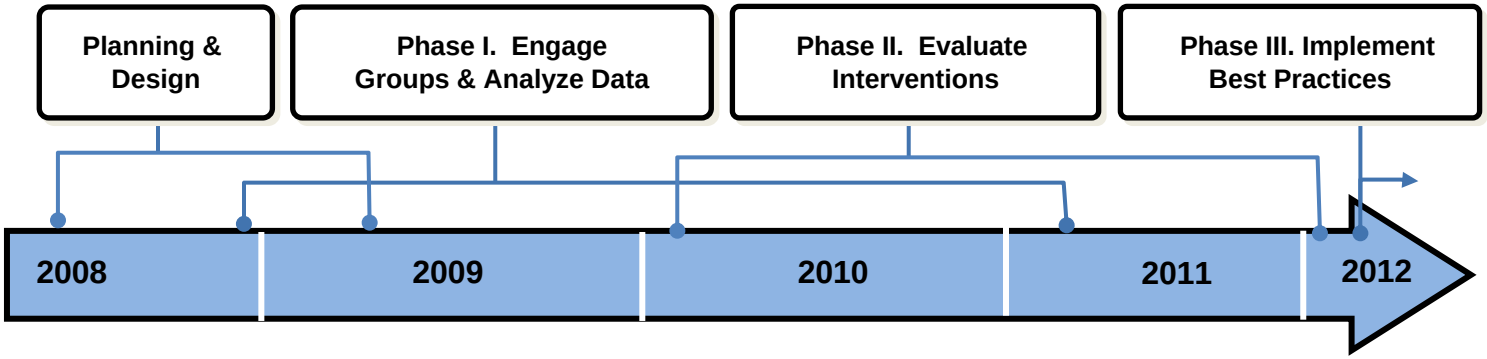
[2] Haynes RB et al. Interventions for enhancing medication adherence. *Cochrane Database of Systematic Reviews* 2008, Issue 2. Art. No.: CD000011.

[3] Sokol MC, et al. Impact of medication adherence on hospitalization risk and healthcare cost. *Med Care*. 2005;43:521-530

[4] Goldman DP et al. Varying pharmacy benefits with clinical status: the case of cholesterol-lowering therapy. *Am J Manag Care*. 2006;12:21-28.

CCAP Purpose and Intervention Design

- Purpose: Evaluate the impact of improving medication adherence on diabetes and cardiovascular quality measures, and potential future measures
  - IHA Coordinated Diabetes Care (HbA1c and LDL-C screening and control)
  - Cholesterol management (LDL-C screening and control) in patients with defined cardiovascular conditions
  - National Quality Forum (NQF) proposed adherence measures[1]
- Project Phases:



[1] NQF (National Quality Forum). Medication Management—National Voluntary Standards for Medication Management. Available at http://www.qualityforum.org/Publications/2010/05/National_Voluntary_Consensus_Standards_for_Medication_Management.aspx . Accessed 1/26/11

Program Overview

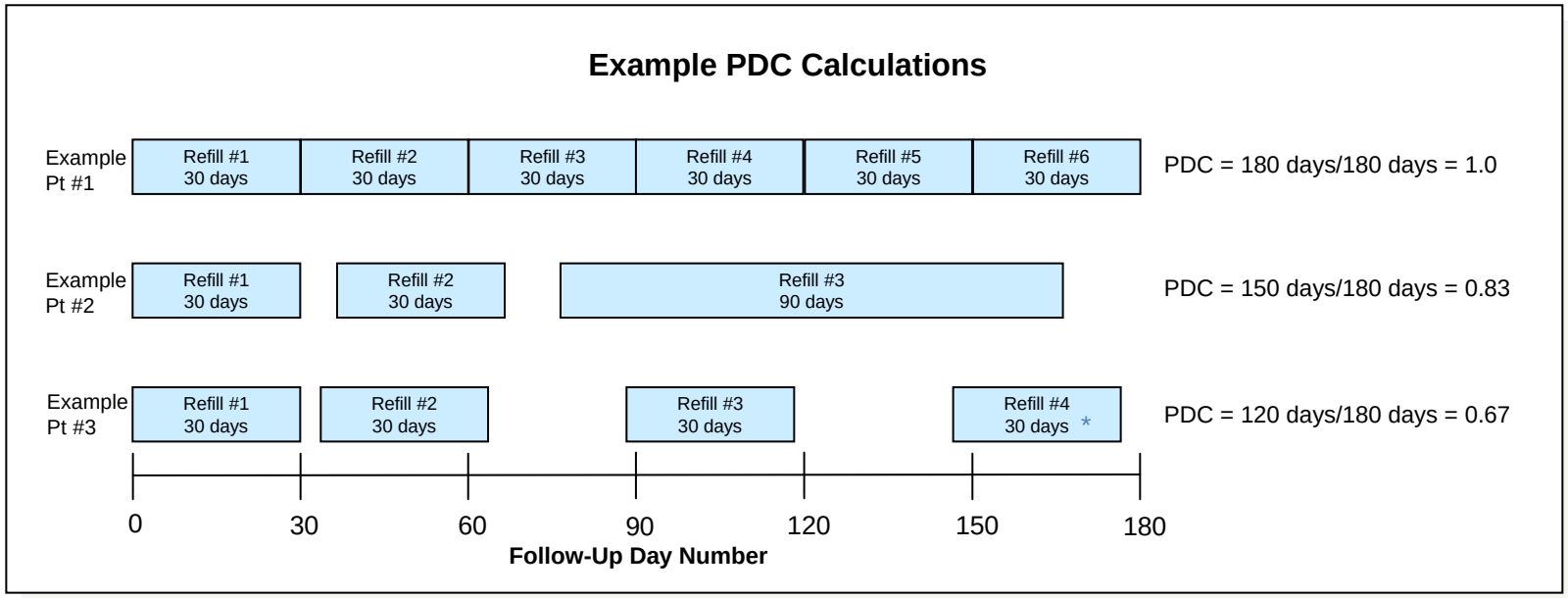
- Project Planning and Design
  - Advisory Boards involving key stakeholders, medical group representatives (clinical, quality, operations), and local and national thought leaders on adherence, intervention, policy and quality
  - Develop HIPAA-compliant processes for data exchanges
  - Develop data analysis plan, report templates, and CCAP evaluation plan
  - Design and develop interventions and workflow templates
- Phase I: Medical Group Engagement and Data Analysis
  - Implement and refine data exchange processes
  - Perform analyses to identify magnitude of quality improvement opportunity and refine CCAP intervention design
- Phase II: Interventions
  - Increase awareness of patients' adherence level and need for intervention: Medical group-, physician-, and patient-level reports
  - Support providers in assessing and addressing adherence barriers: Communication training and materials integrated into the workflow of provider-patient interaction
- Phase III: Disseminate/implement best practices
  - Controlled trial design

Adherence Measure Definition

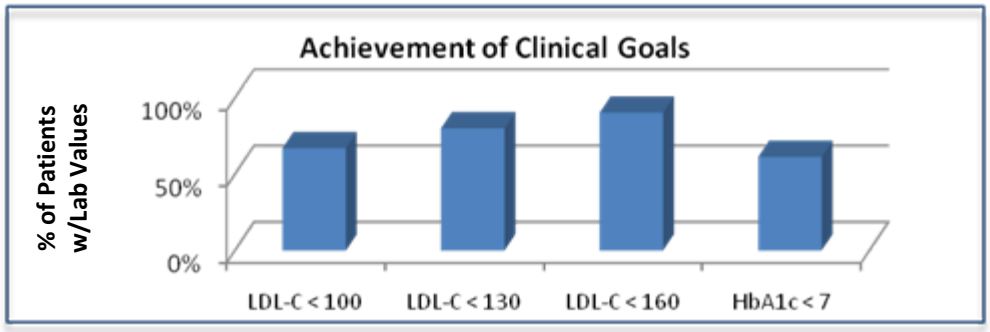
Proportion of Days Covered (PDC)

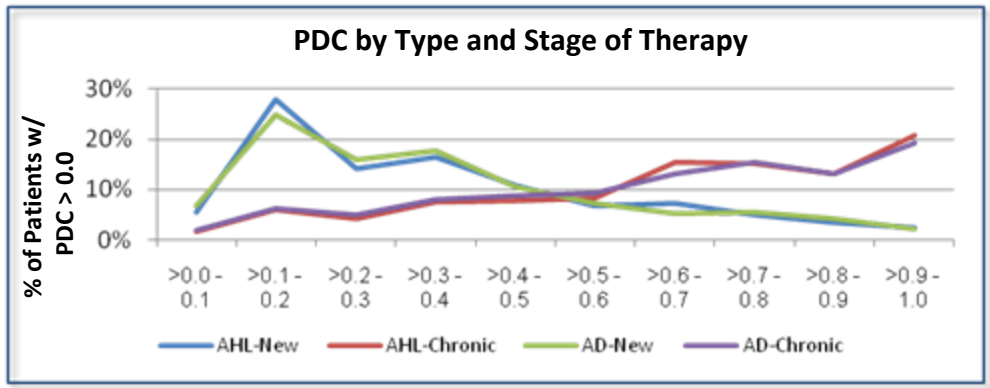
$$\frac{\text{Number of days in the measurement period during which the patient possessed the medication supply}}{\text{Total number of days in the measurement period}}$$

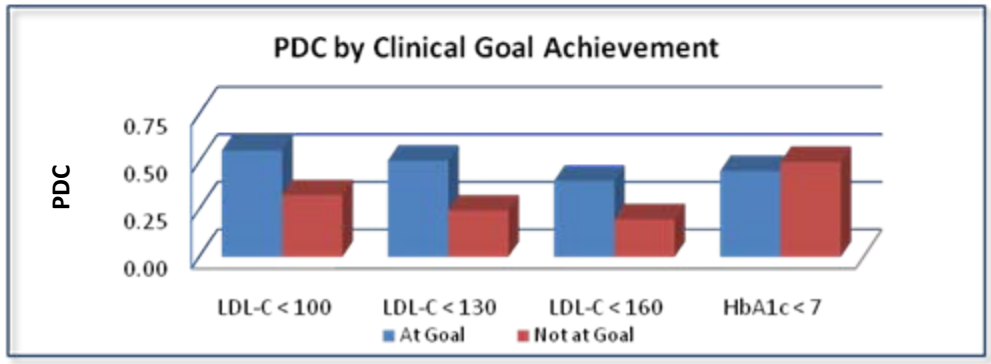
- Estimates patients' day-to-day medication use patterns
- PDC values range from 0 (extremely poor adherence) to 1.0 (very good adherence)



Engage Groups and Analyze Data (Baseline)







Source: CCAP Phase 1 data on file. (2010) N=67,172

Data-Driven Patient Selection

Eligibility and encounter records, laboratory values, and prescription pharmacy claims

↓

Identify patients with diabetes and/or defined high risk cardiovascular conditions

↓

LDL-C and/or HbA1c at goal? — Yes → Not CCAP Target Patient

No ↓

PDC > 0.8? — Yes → Not CCAP Target Patient

No ↓

CCAP Target Patient: Not At Goal *and* Non-Adherent

Education / Behavior Change Strategies

Identify	CCAP Data Analysis: Patient-Level Report	Identifies cardiovascular and diabetes patients who are: • Not at clinical goal, and/or • Non-adherent to prescribed medications based on prescription refill patterns
Assess	MEDICATION MATTERS	Based upon patient self-reported information: • Identifies knowledge and/or motivational barriers to medication adherence • Supplements CCAP Report with information regarding a patient's risk for non-adherence
Assess	Rx-AIM Rx-Adherence through Information and Motivation	Educates physicians and office staff to: • Apply health behavior change strategies to elicit information from patients in order to assess medication adherence and determine a barrier-matched approach for medication advice/ counseling • Tailor advice/ counseling to patients based upon the patient's need for information, motivation, or strategies to overcome medication adherence barriers
Intervene	Materials to Complement Inform-Motivate-Strategize Conversation: Ask Me 3	• Educates patients to proactively ask questions of their providers to enhance understanding of health information and advice/ counseling • Provides a framework for providers to present key information to patients regarding their condition and/or medications
Intervene	Materials to Complement Inform-Motivate-Strategize Conversation: Good Health	• Reinforces discussion regarding self-management (including medication adherence) for diabetes, dyslipidemia, and hypertension
Intervene	Materials to Complement Inform-Motivate-Strategize Conversation: Prescription for Health	• Addresses common questions regarding chronic medication use and polypharmacy issues for older adults
Intervene	Materials to Complement Inform-Motivate-Strategize Conversation: Communication makes change easier	• Provides a "patient contract" for committing to key actions for medication adherence and patient tools (medication list, calendar to track medication use, reminder to apply "Ask Me 3" if information is unclear)
Intervene	Materials to Complement Inform-Motivate-Strategize Conversation: Know Your Health	• Combines education and actionable steps for improving medication adherence
Intervene	Materials to Complement Inform-Motivate-Strategize Conversation: Know When You Need a Refill	• Educates patients to utilize available refill reminder services that may be available from their pharmacy

Intervention Example: Information-Motivation-Strategy Model©

Six Major Reasons for Non-Adherence

1. Poor two-way communication of information
2. Poor therapeutic relationship (ineffective provider-patient interactions)
3. Patient does not believe in treatment (negative attitude towards treatment)
4. Patient's cultural norms and social network do not support the regimen
5. Patient lacks commitment to adhering
6. Practical barriers stand in the way

3-Factor Model for Communication

*I*nform

- Patients must **know what to do**
- Patients can only do what they understand
- Patients remember more when they feel they are part of the conversation

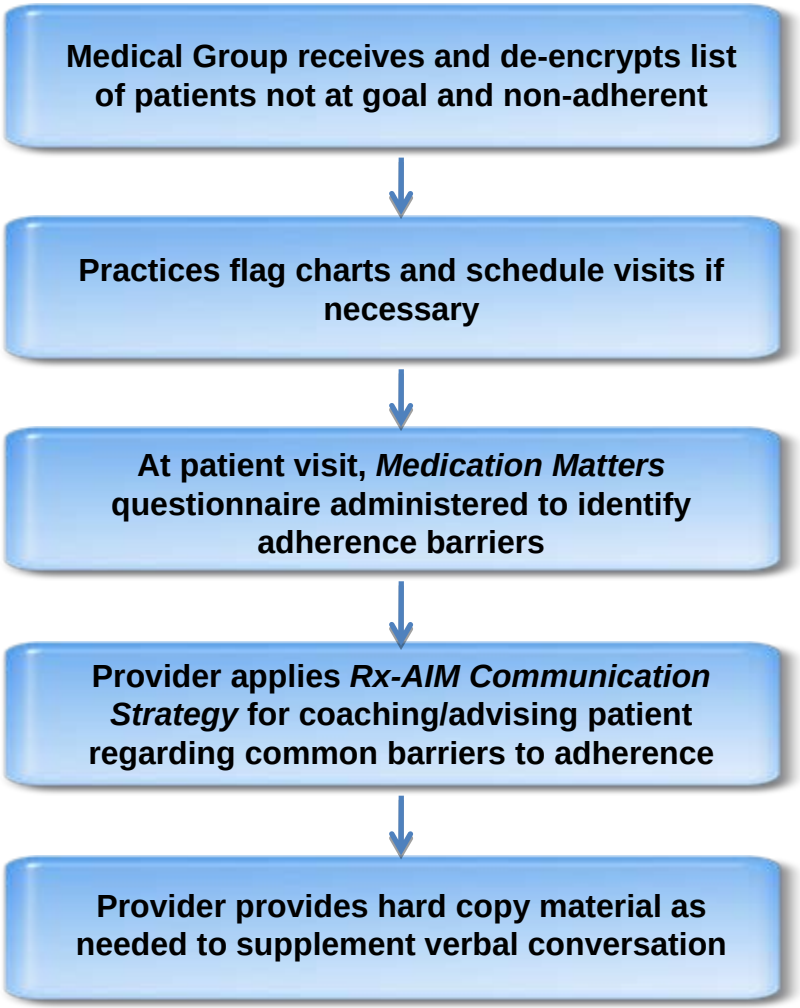
*M*otivate

- Patients must **want to follow the regimen**
- Patients will only commit to something they believe in, and to what is consistent with their social network and cultural norms

Strategize

- Patients must **be able to follow the regimen**

Workflow: Customized to Medical Group Needs



- Centralized vs Practice-Based Model
- EHR vs non-EHR environment
- Care management / disease management program vs office staff
- Telephonic vs in-person interaction

CCAP at Santé

Santé Community Physicians IPA

- Physician-owned Independent Practice Association (IPA)
- Part of the IHA's Central Valley Region, serving Fresno, Madera, and King Counties
- 1,200 Physicians
  - 370 PCPs in 175 practice sites
- 100,000 HMO lives
  - ~90,000 commercial, ~10,000 senior
- EHR adoption growing, but not yet dominant
- Santé Health System MSO

Phase I: Quantify Improvement Opportunity

Subgroup	LDL-C[1]	HbA1c[2]	PDC > 80%
CVD	73%	n/a	29%[3]
Diabetes	51%	55%	25%[4]
CVD + Diabetes	62%	61%	30%[3] - 31%[4]

1. LDL-C goal based upon ATP-III level of cardiovascular risk; % of patients with LDL-C values during measurement period
2. HbA1c < 7%; % of patients with HbA1c values during measurement period
3. For antihyperlipidemic medications, % of patients with any antihyperlipidemic Rx fill
4. For antidiabetic medications; % of patients with any antidiabetic Rx fill

- High risk patients not at goal and with a low PDC should be identified and prioritized for medication adherence intervention
- There is a gap in patient data (i.e., patients who do not have pharmacy claims but who state that they are filling prescriptions)

SANTE COMMUNITY PHYSICIANS

Phase II Planning

- Centrally coordinated through Quality Improvement Department
- Implementation considerations
  - HMO only (access to necessary data)
  - Recruited practices with higher volumes of diabetes or CV patients not at goal
  - Allowed practices to select a centralized or practice-based workflow
  - Allowed practices to select materials after training (i.e., practices decided which hardcopy materials to have available at the practice site)
- Created in-house tracking application
  - CCAP data uploads
  - Intervention tracking
  - Report generation

Customizations for Group & Practice Needs

Medical Group receives and de-encrypts list of patients not at goal and non-adherent

IT Department created Access-based database for CCAP data uploads, intervention tracking, and reporting

Practices flag charts and schedule visits if necessary

Practice-based Model

At patient visit, *Medication Matters* questionnaire administered to identify adherence barriers

Provider applies *Rx-AIM Communication Strategy* for coaching/advising patient regarding common barriers to adherence

Provider provides hard copy material as needed to supplement verbal conversation

Centralized Model

Disease Management Manager administers Medication Matters questionnaire telephonically

Disease Management Manager provides telephonic coaching

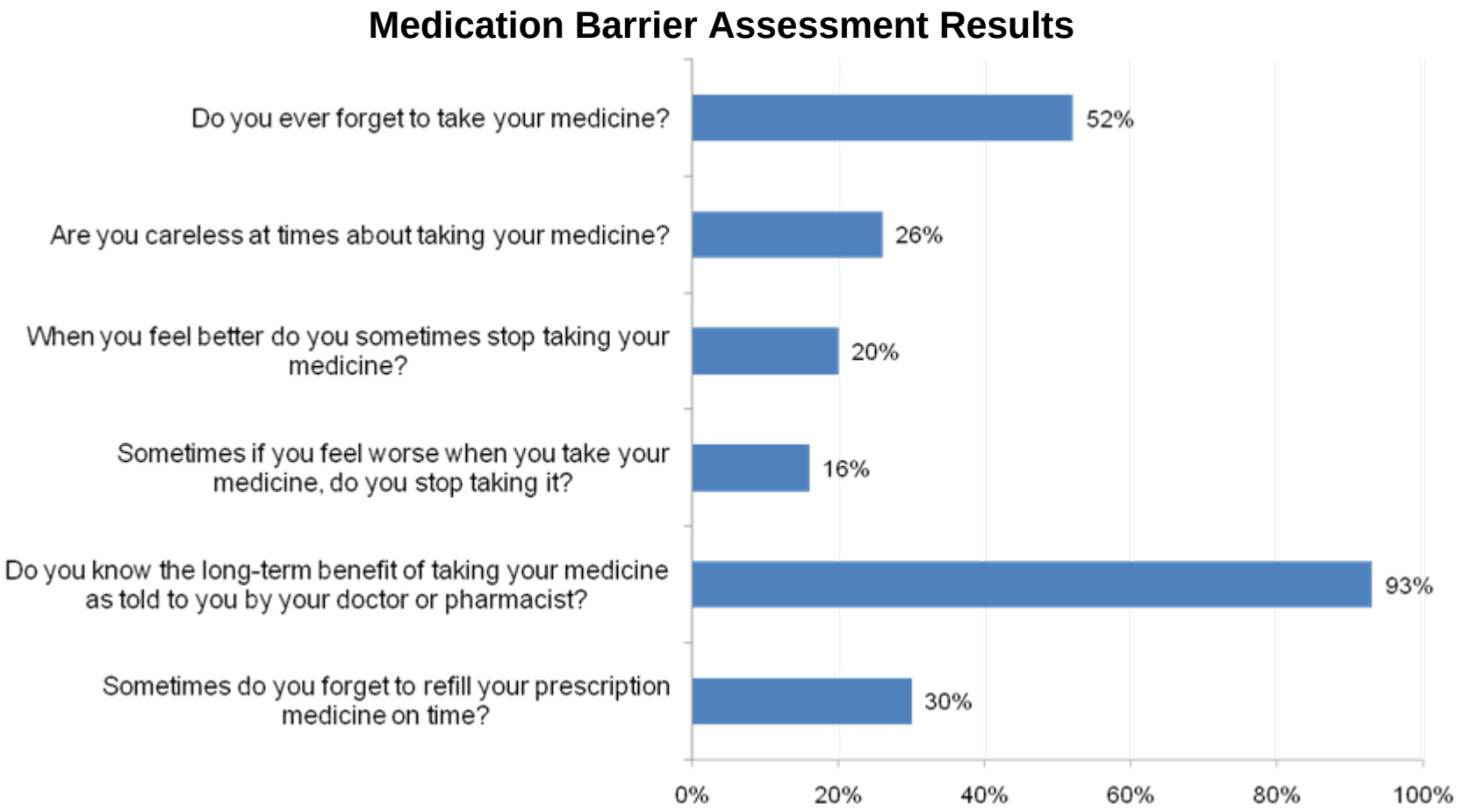
Disease Management Manager mails materials to patient

SANTE COMMUNITY PHYSICIANS

Phase II Implementation, cont.

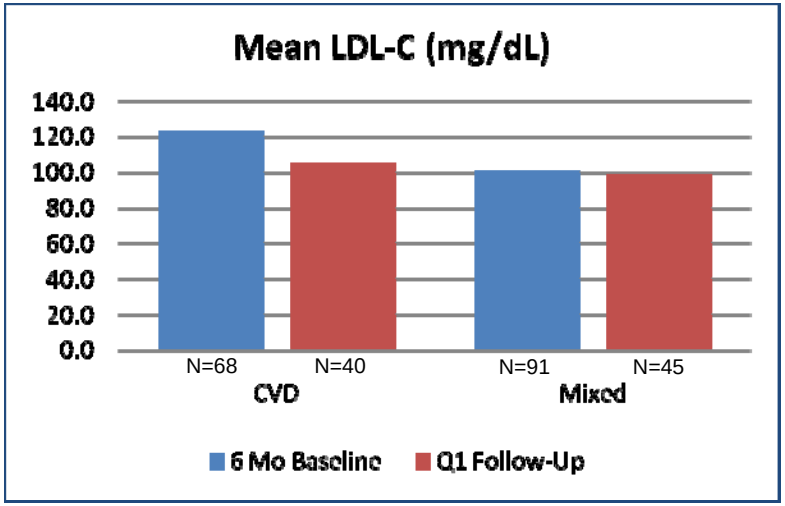
- Initiated April 2010
  - 20 Practices with higher target patient volumes were recruited for participation
  - Targeted ~ 300 high risk patients not at goal and non-adherent
- 70% of practices implemented practice-based model, 30% initiated centrally-based model
- Training conducted by Pfizer
  - Santé staff training (train-the-trainer)
  - Two-hour, in-person training session for physicians and practice staff conducted
    - ~ 1 hour covering workflow and operational issues
    - ~ 30 minutes for provider-patient communication training (Rx-AIM) and integration of hardcopy materials

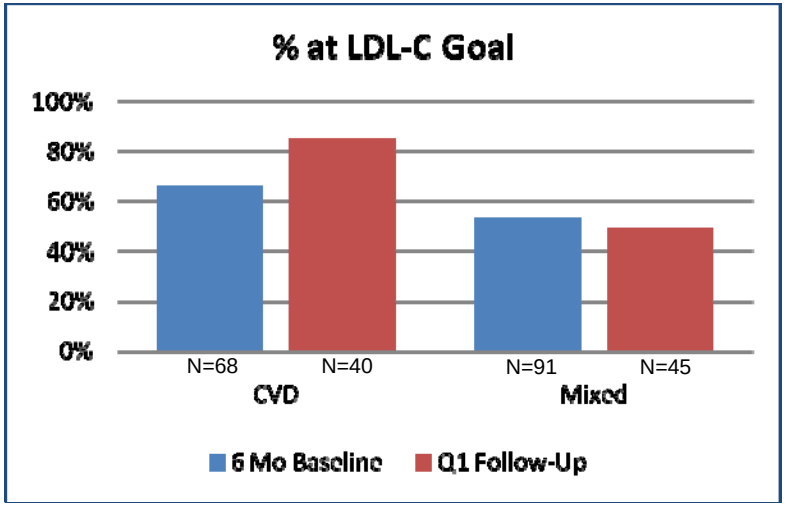
Adherence Barriers in Target Population

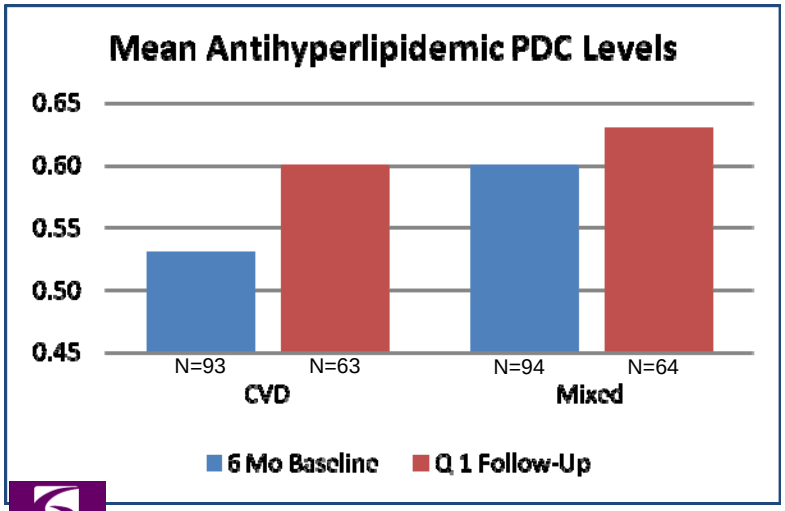


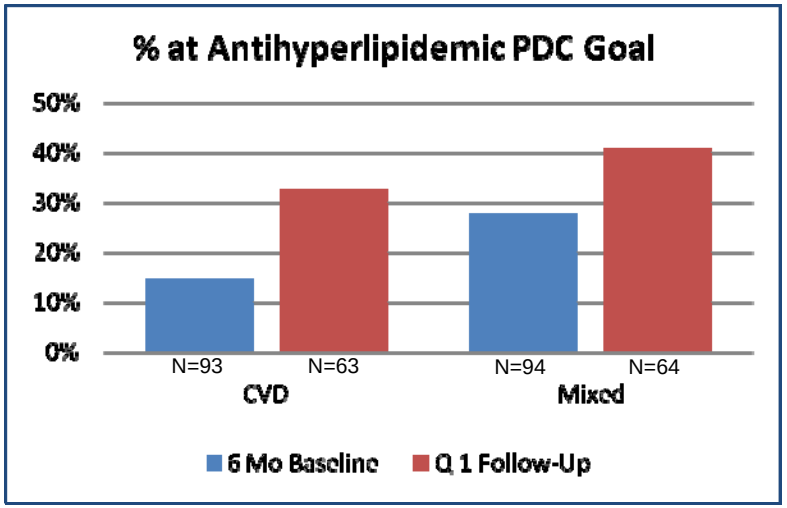
Data on File: CCAP Sante Health System. April 2010 – December 2010

Early Trends of Project Impact: LDL-Cholesterol*





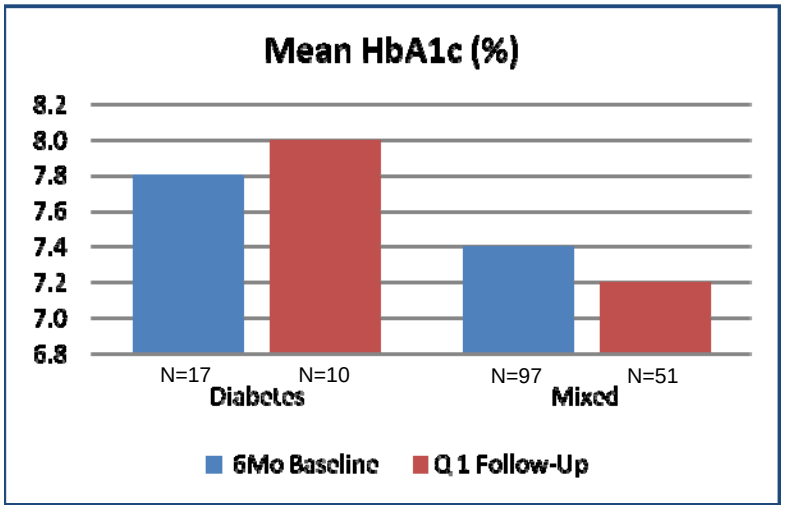


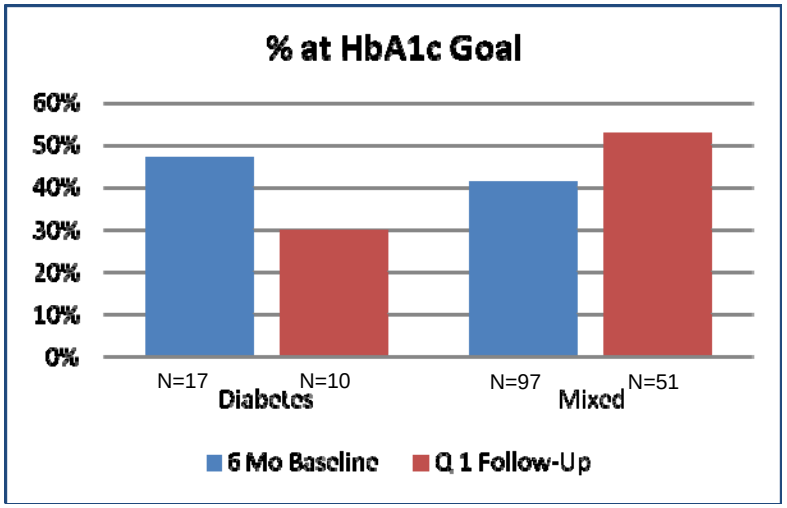


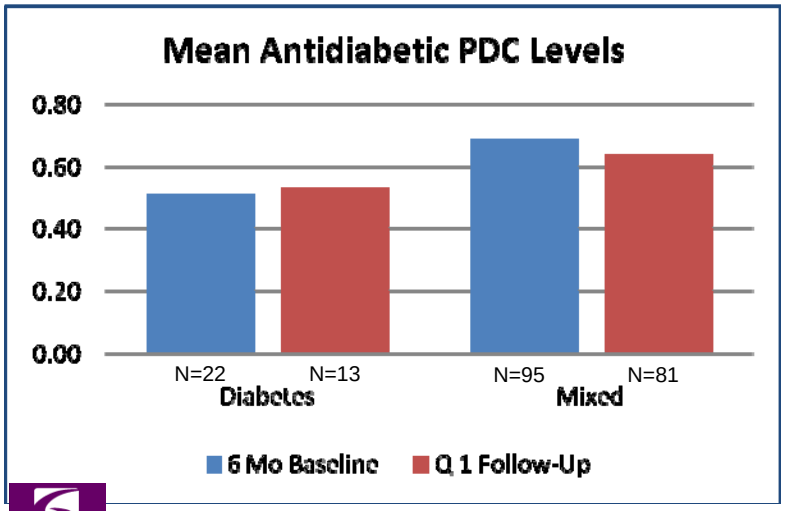
***Of patients with LDL-C value or with at least one antihyperlipidemic prescription during period**

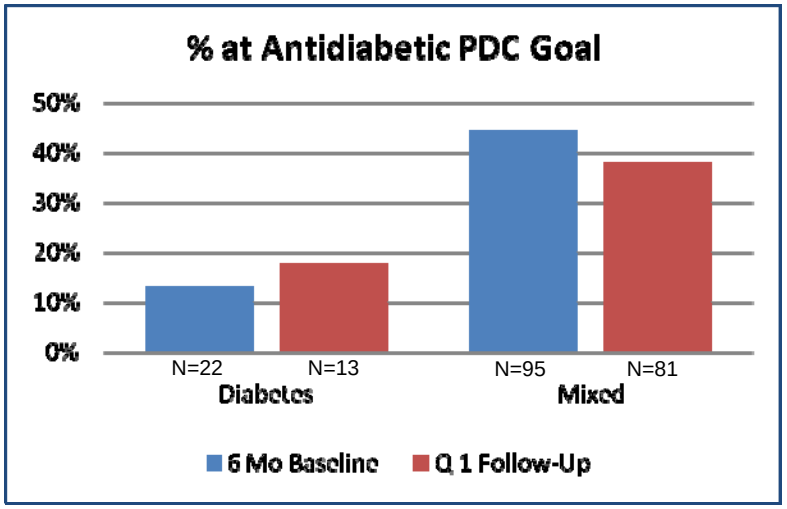
Data on File: CCAP Sante Health System. April 2010 – December 2010

Early Trends of Project Impact: HbA1c*









***Of patients with HbA1c value or with at least one antidiabetic prescription during period**

Data on File: CCAP Sante Health System. April 2010 – December 2010

Lessons Learned

- Prescription pharmacy data may be incomplete
  - Could not calculate PDC for a proportion of patients due to no pharmacy claims for the medications of interest
  - Based upon patient interviews, use of drug samples or “cash pay” may not fully account for incomplete data—more review is needed
- Practice site experience so far
  - Favorable comments from practice sites
  - Positive feedback from patients
- Keys to success
  - Adaptation to practice workflow is important
  - Involvement of office staff is key

Conclusions

- There is opportunity to improve clinical goal attainment
- Medication non-adherence is common among not-at-goal patients
- We can help our providers by
  - Letting them know when patients are non-adherent
  - Providing simple training and tools that can be used by practices to address common reasons for non-adherence

Questions and Discussion

Thank You!

- **For further information about CCAP, please contact:**

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