# Care Management Plus: Technology + People to improve outcomes for at-risk persons

David A. Dorr, MD, MS
Associate Professor
Department of Medical Informatics & Clinical Epidemiology
General Internal Medicine & Geriatrics
OHSU

Funding for this research from The John A. Hartford Foundation, AHRQ, Intermountain Healthcare, and the National Library of Medicine

More information at caremanagementplus.org

# Why do we need care innovation?

Ms. Viera

a 75-year-old woman
with diabetes,
systolic hypertension,
mild congestive heart failure,
arthritis and
recently diagnosed dementia.

She comes to clinic with 5 issues …

+ two more 'hallway issues'!

What can a primary care team do?

# Past: Heroism in the face of multiple illnesses

Multiple diseases increase risk and coordination *exponentially* (5+ : 90 x risk of hospitalization; 10x Rx; 13 providers vs. 2) . Managing in a primary care panel would take 18 hrs/day. Patients have better process scores, but *worse* preventable Hospitalizations.

# Intervention: Care Management Plus

Dissemination to over 170 clinical teams

**Referral**
- For any condition or need
- Focus on certain conditions

**Care management**

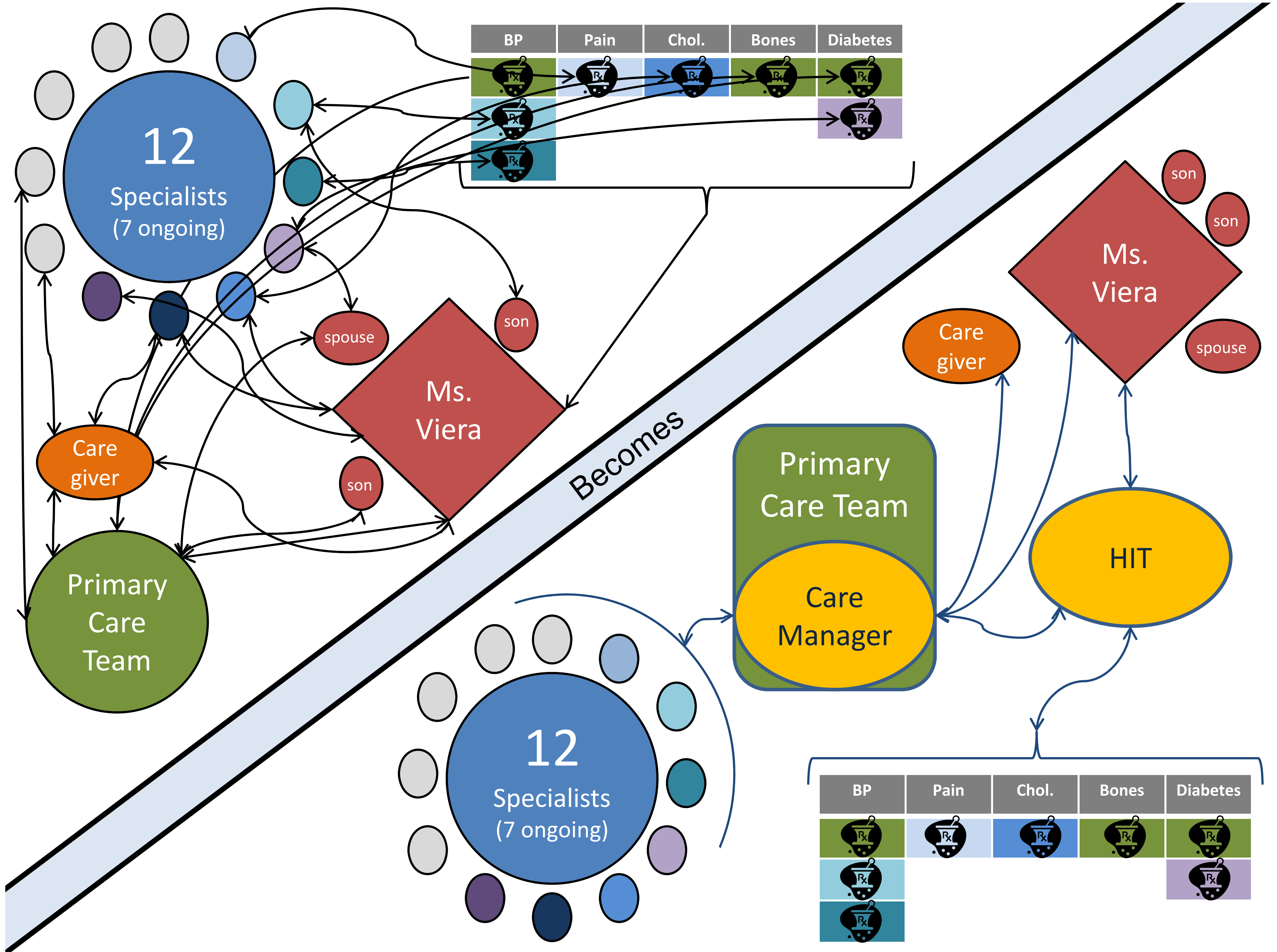
**Care manager**
- *Assess & plan*
- *Catalyst*
- *Structure*

**Technology**
- *Access*
- *Best Practices*
- *Communication*

**Evaluation**
- Ongoing with feedback
- Based on key process and outcome measures

*Larger infrastructure: Electronic Health Record, quality focus*

Anderson, 2004 ; Woolf, 2002; Baron, 2007, 2010; Werner 2008

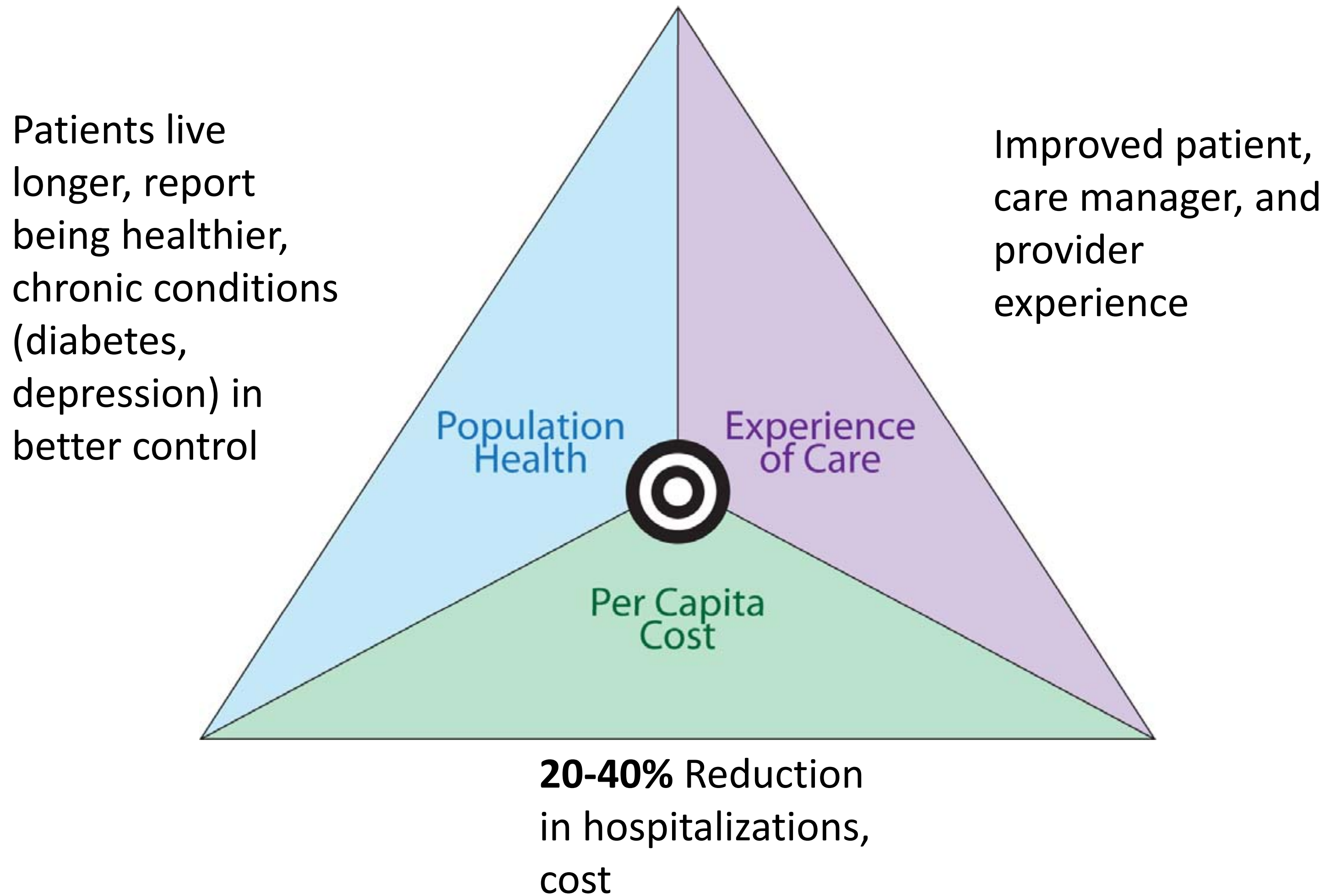


BP
Pain
Chol.
Bones
Diabetes
12
Specialists
(7 ongoing)
spouse
son
Ms.
Viera
Care
giver
son
Primary
Care
Team
Becomes
son
son
Ms.
Viera
Care
giver
spouse
Primary
Care Team
Care
Manager
HIT
12
Specialists
(7 ongoing)
BP
Pain
Chol.
Bones
Diabetes

# Evidence-based …

## The TRIPLE aim of health care

Patients live longer, report being healthier, chronic conditions (diabetes, depression) in better control




Improved patient, care manager, and provider experience

**20-40%** Reduction in hospitalizations, cost

www.caremanagementplus.org/pubs.html

# Efficient yet effective use of tools

Enroll and Create Tasks

Summary Graphs: Overall Team Comparison Breakouts by Measure: --Please Select--

-Prevention- -Diabetes- -Asthma- -CAD- -Hypertension-

DIABETES

| Team Name | A1c < 7.0% (18+): Target Score: 52% | Score | N | LDL: Target Score: 55% | Score | N | Pneumovax: Target Score: 75% | Score | N |
|---|---|---|---|---|---|---|---|---|---|
| OHSU GIM | | 52% | 201 | | 57% | 201 | | 70% | 200 |
| Cascade | | 50% | 201 | | 57% | 201 | | 76% | 200 |
| Diamond | | 46% | 263 | | 59% | 263 | | 61% | 263 |

Manage and Complete Tasks

## Care Manager Encounter Tickler List

Care Manager: <----- All -----> d Date: 11/23/2009 ... 12/23/2009 ... Run

**Care Manager: All Care Managers**
For Time Period: 11/23/2008 to 12/23/2009

| | Scheduled Date | Scheduled Time | Encounter Type | Reason | EHR ID | First Name | Last Name | Phone | PCP | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Select | 2009-12-18 | | Telephone Contact | Clinical Protocol(s) | 4582317 | Mariah | Bouchard | 456.732.5236 | Carl Generic | Quality Measure: Age PHQ2: 0 Lab Date: 12/01/2009 |
| Select | 2009-12-17 | 08:00 | Telephone Contact | Goals | 4582317 | Mariah | Bouchard | 456.732.5236 | Carl Generic | PHQ9 Follow-Up: |
| Select | 2009-11-16 | 13:00 | CM Office Visit | Status Check | 88888888 | zzzzbugs | zzzzbunny | | | Meet with family and patient to discuss care plan |

# Patient-centered summary

Generate
Summarized Clinical
Information

**Patient Worksheet**

**Binnes, Harry** | **PRINT**

**MRN:** 1324234 **Sex:** M **DOB:** 01/24/1956
**Phone:** 9874584587 **PCP:** Parnel Fieldman
**Care Manager:** Susie Example **Caregiver:**

## Next Care Management Encounter

| Sched Date | Sched Time | Encounter Type |
|---|---|---|
| 01/06/2010 | 09:00 AM | CM Office Visit |

## Last Care Management Encounter

| Sched Date | Sched Time | Encounter Type |
|---|---|---|
| 12/04/2009 | 08:00 AM | Telephone Contact |

## Diagnoses

Diabetes, Cystic Fibrosis, Anemia

## Medications

| Medication | Dosage | PRN | Med Start Date |
|---|---|---|---|
| albuterol | | ☐ | 08/07/2008 |

## Goals

| Status | Follow Up Date | Goal | Note | score | Set Date |
|---|---|---|---|---|---|
| Completed | 12/21/2009 | Nutrition | | 10 | 12/05/2009 |
| Completed | 12/21/2009 | Activity | | 5 | 12/05/2009 |
| Completed | 11/13/2009 | Activity | | 6 | 11/13/2009 |
| Completed | 11/13/2009 | Nutrition | | 8 | 11/13/2009 |
| Pending | | Meds | | | 10/06/2009 |

## PHQ

| Date | PH2 Score | PHQ9 - Severity | Q9 Suicide | Followup |
|---|---|---|---|---|
| 12/02/2009 | 6 | 25 | 3 | |
| 11/05/2009 | 3 | 17 | 3 | 12/04/2009 |
| 07/07/2009 | | 10 | 2 | |
| 07/02/2009 | | | 0 | |

## Functional Status

| Date | ADL | IADL | MMSE | Pain |
|---|---|---|---|---|
| 07/08/2009 | | | 2 | 9 |
| 12/11/2009 | | | | |

## Care Actions

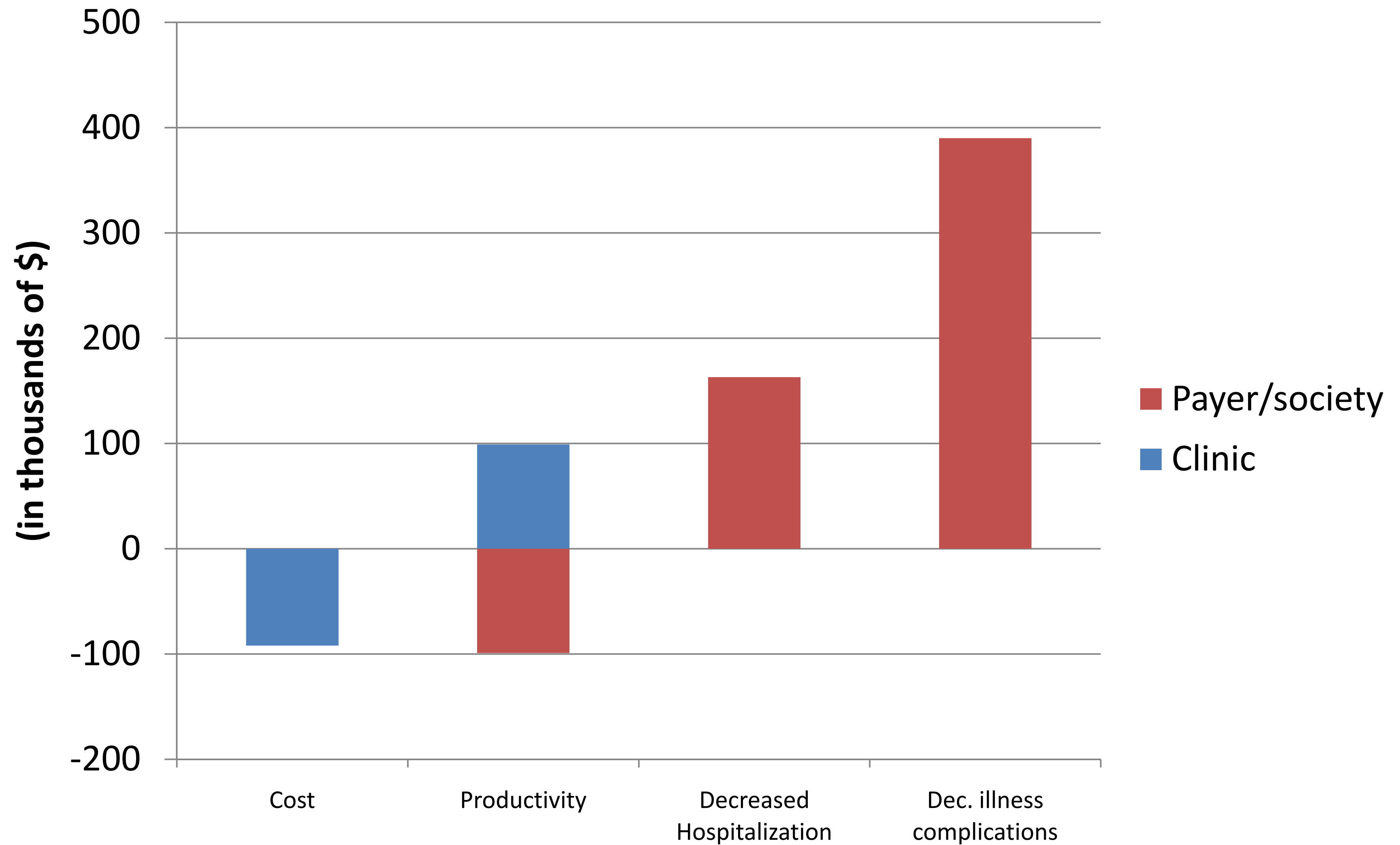
Diabetes Date/Value Status Preventative Care Date/Value Status

## Care Actions

| Diabetes | Date/Value | Status |
|---|---|---|
| A1c in Last 6 mo | 10/06/2009 | OK |
| A1c < 7 | 9.1 | **A1c out of Range** |
| LDL Last Year | 09/30/2009 | OK |
| LDL < 100 | 130 | **LDL HIGH** |
| Last Doctor's Visit is not available | | |

| Preventative Care | Date/Value | Status |
|---|---|---|
| Patient > 50 needs flu shot at least once | | **YES** |

# Return on Investment per clinic



# CM+ can help you transform…from fragmented, confused care to proactive, effective care

## Training

- **Team-based**
- **In-person + on-line**
- **Experiential**
- **5 faculty**
- **27+ CEUs/CME**

---

- **$1500/person**
- **130 paid participants in 2011**
- **Market : ~50,000 participants**

## HIT

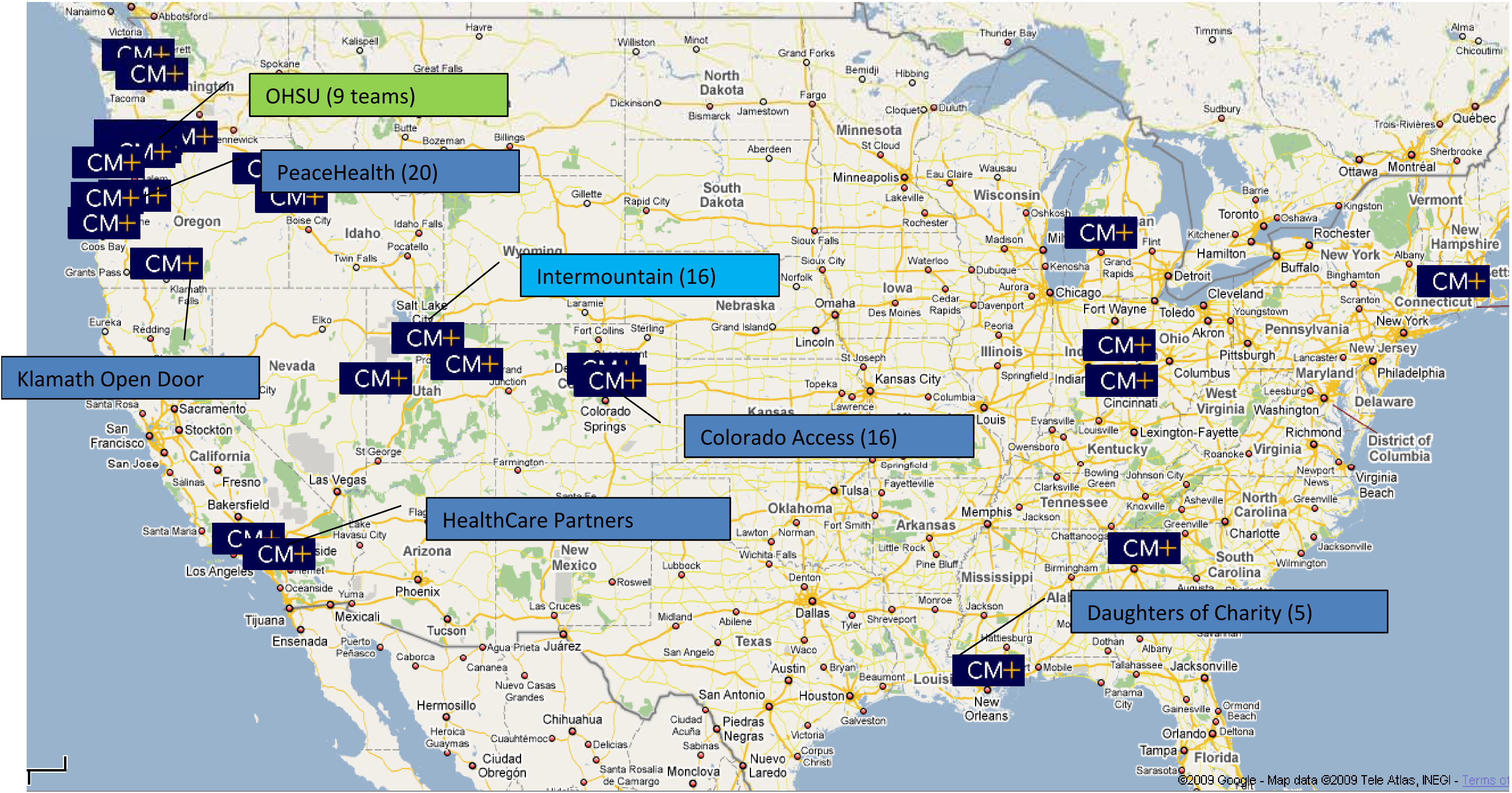
- **Adjunct to EHR**
- **Population management**
- **Care management tracking**
- **Clinical summaries**
- **Helps qualify for quality reporting, medical home, care coordination payments**

---

- **$50 user license/year + costs**
- **$100k in contracts in 2011**
- **Market: ~10,000 clinics**

Cost over installation year: ~$50,000 per clinic
Savings: $200-300,000 per clinic
NET BENEFIT: $150,000-250,000

# What have we learned about dissemination in rolling out the program to over 170 clinical teams?



- Oregon Health & Science University
  - David Dorr, PI
  - Kelli Radican
  - Susan Butterworth
  - Nima Behkami
  - Marsha Pierre-Jacques Williams
  - Gwenivere Olsen
  - Molly King
  - Kristin Dahlgren
- Columbia University
  - Adam Wilcox
- Intermountain Healthcare
  - Cherie Brunker, Co-PI (UU)
  - Liza Widmier
  - Mary Carpenter
  - Bryan Gardner
  - Ann Larsen
- Advisory Board
  - K. John McConnell
  - Tom Bodenheimer
  - Eric Coleman
  - Cheryl Schraeder
  - Heather Young
  - Steven Counsell
  - Larry Casalino

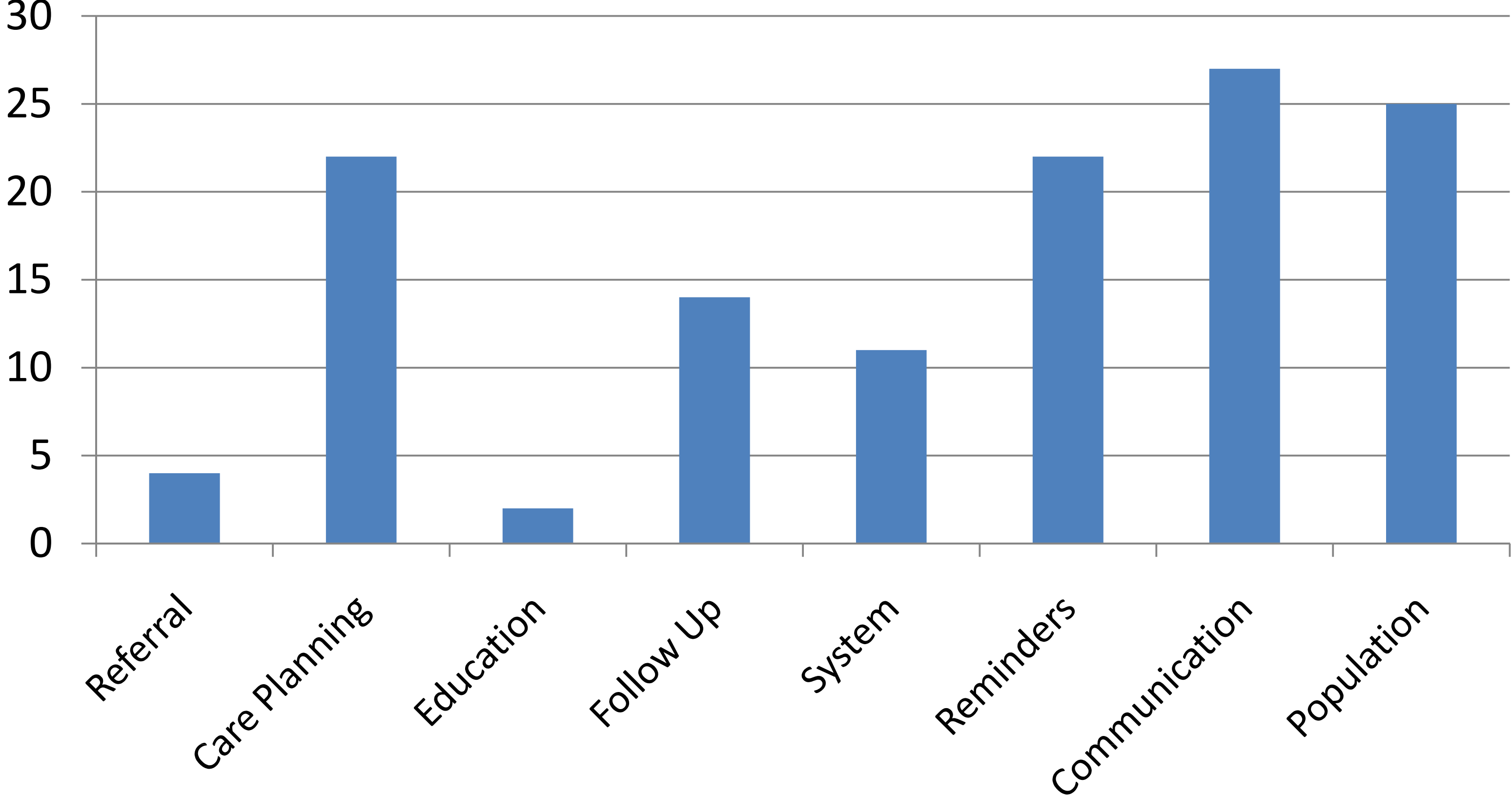
# Thank you!

- dorrd@ohsu.edu
- www.caremanagementplus.org

# Additional Slides for topics

# “Hello, Computer”

# Most EHRs, as implemented, STILL don't have necessary functions



# ICCIS Interactive Quality Reports

**Selected Measure:** Diabetics with hemoglobin A1c measured in the past 6 months (18-75)

**Total: 7** Print

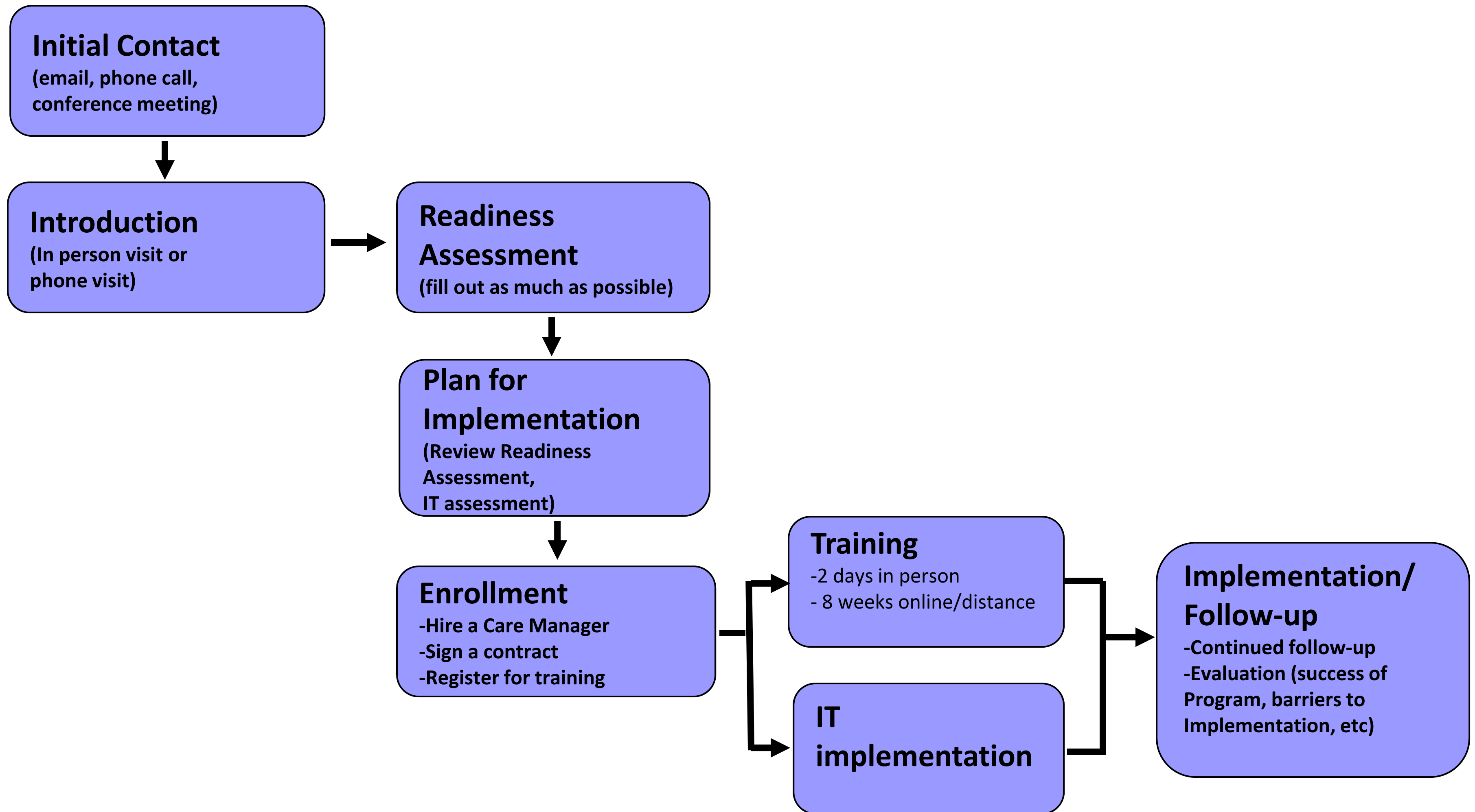
**Value Adherence Rate: 57.143%** **Date Adherence Rate: 85.714%**

Update Update

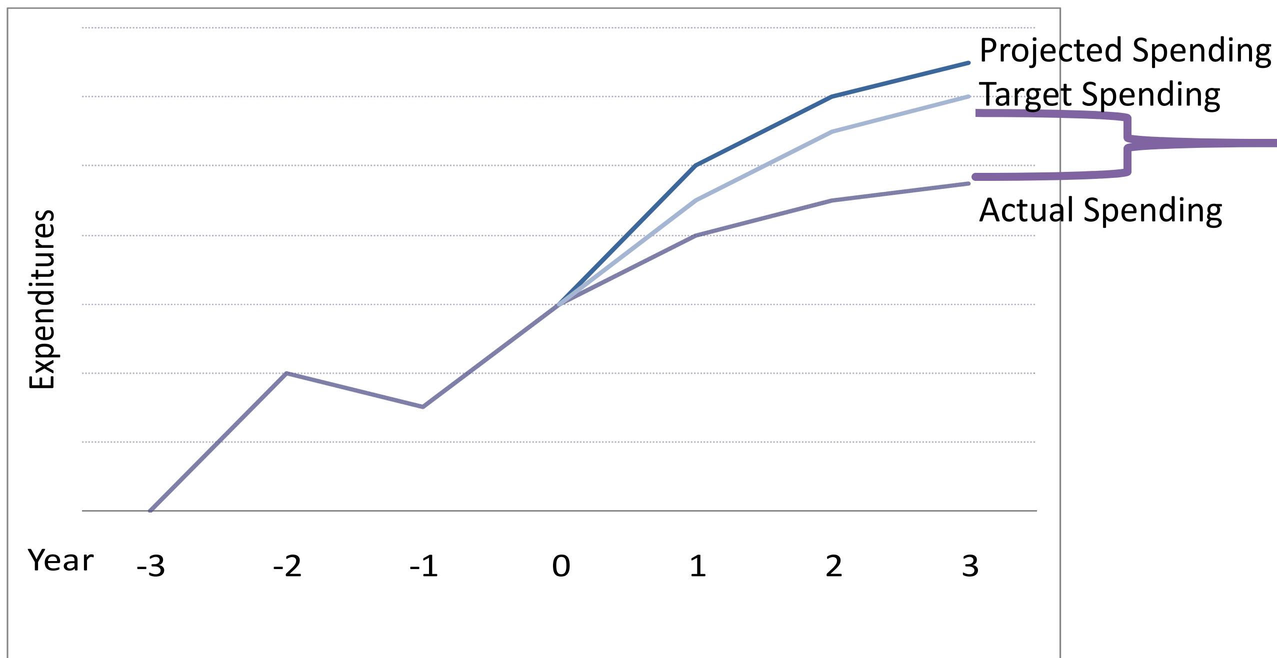
| No Longer in Practice | Assign to CM Task | Patient | Phone | Physician | Lab | Lab Result | Lab Date | Exclude from ALL Diabetes | Exclude from this Measure ONLY |
|---|---|---|---|---|---|---|---|---|---|
| ☐ | ☐ | Binnes, Harry | 9874584587 | Parnel Fieldman | A1C | 9.1 | 10/06/2009 | ☐ | ☐ |
| ☐ | ☐ | Cline, bobby | 987.546.7765 | Hillary Caseman | A1C | 6.1 | 09/30/2009 | ☐ | ☐ |
| ☐ | ☐ | Gibbs, Jenny | | Carl Generic | | | | ☐ | ☐ |
| ☐ | ☐ | Holden, Henry | | Carl Generic | A1C | 7.7 | 10/06/2009 | ☐ | ☐ |
| ☐ | ☐ | Montoya, Jerry | 124.256.3526 | Hillary Caseman | A1C | 5.9 | 10/02/2009 | ☐ | ☐ |

The abilities to document exclusions at multiple levels and generate targeted population-based review cycles avoid the problems caused by static quality reports and allow providers to efficiently focus outreach efforts on high risk populations.

# Stages to Implementation



# Changing incentives for people and providers




1. **Shared Savings**
   **Example :**
   **Accountable Care Organizations**
2. **Tiered payments**
   **Example : Medical Home with risk adjustment**
3. **Meaningful use of HIT**
4. **Care coordination / management payments**

# Clinic Revenue with CMP