Crossing The Quality Chasm: Cardiovascular Care

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Partnership for Quality Care
Chronic Disease Summit
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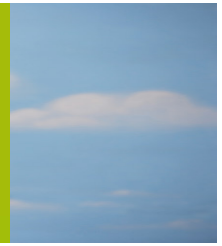
The Impact of Cardiovascular Disease



- In 2008 Americans will suffer:
  - 1.2 million heart attacks
  - 800,000 strokes
  - 1.5 million new cases of diabetes
  - 6 million hospitalizations for CVD,1.3 million angioplasties and 500,000 bypass surgeries
- **An American dies from CVD every 35 seconds**.
- Heart disease and stroke are leading causes of disability among working adults.
- **The cost of heart disease and stroke in the United States is estimated at $450 billion in 2008. It includes direct medical costs and lost productivity from death and disability**.
- Improved care decreased CVD mortality 25% from 1994 to 2004.

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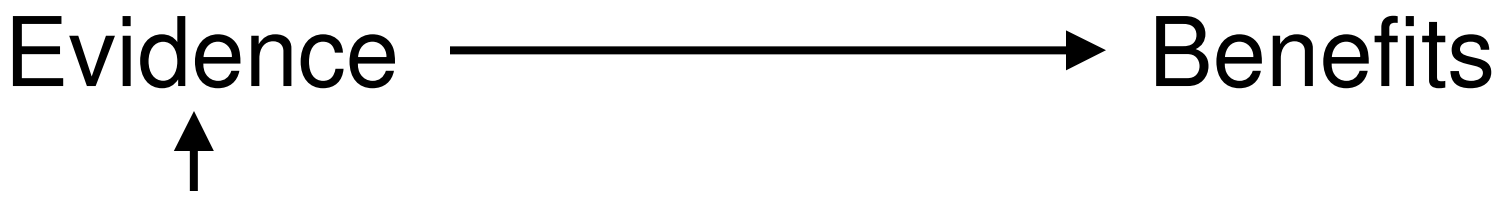
Translating Evidence Into Benefit



Abundant Body of Evidence

- **A 13 point reduction in blood pressure** can lower deaths due to CVD by **25%.**
- **4 generic meds** can reduce CV event risk by **50%.**
- **7 interventions** during the ED/Hospital can reduce mortality.
- **Managing transition** of HF patients from hospital to home can reduce readmissions and prevent catastrophic declines.

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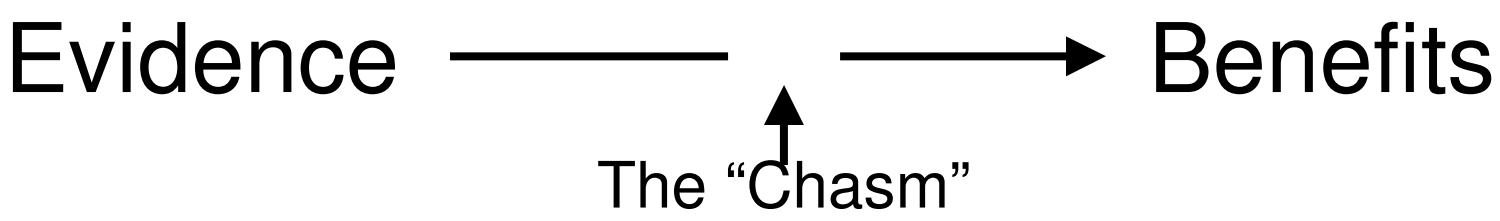
Translating Evidence Into Benefit: The Quality Chasm



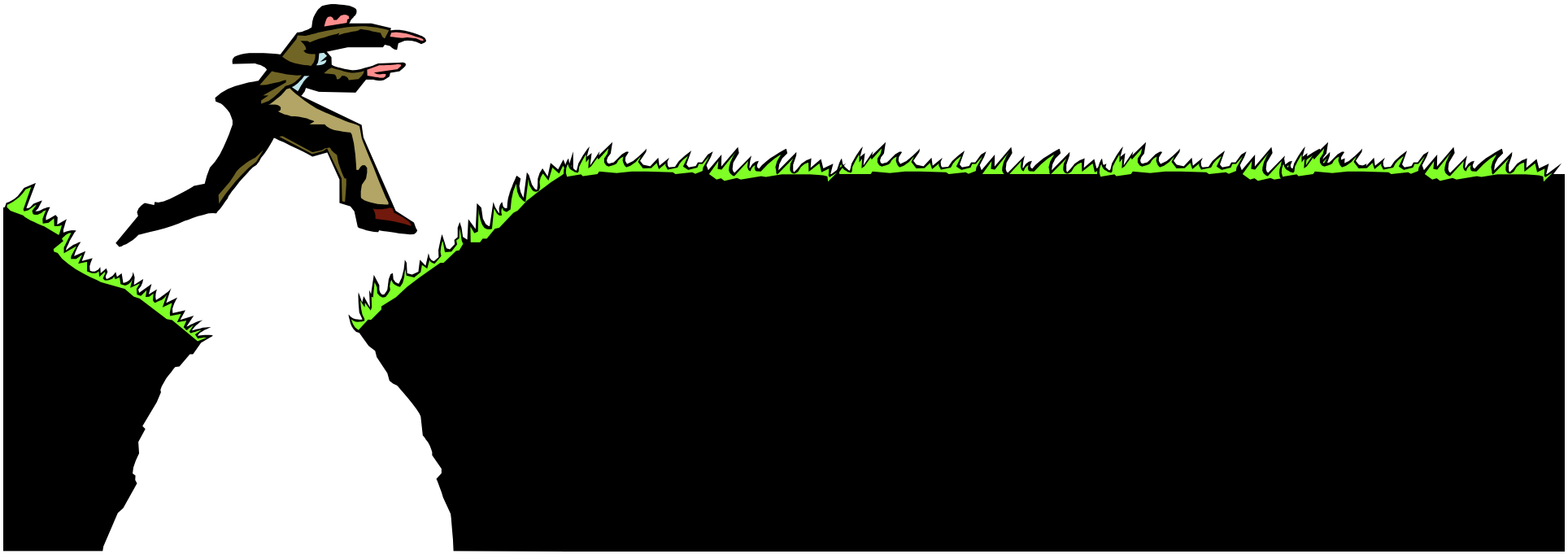
Quality Chasm

In US only 55% of indicated care is provided

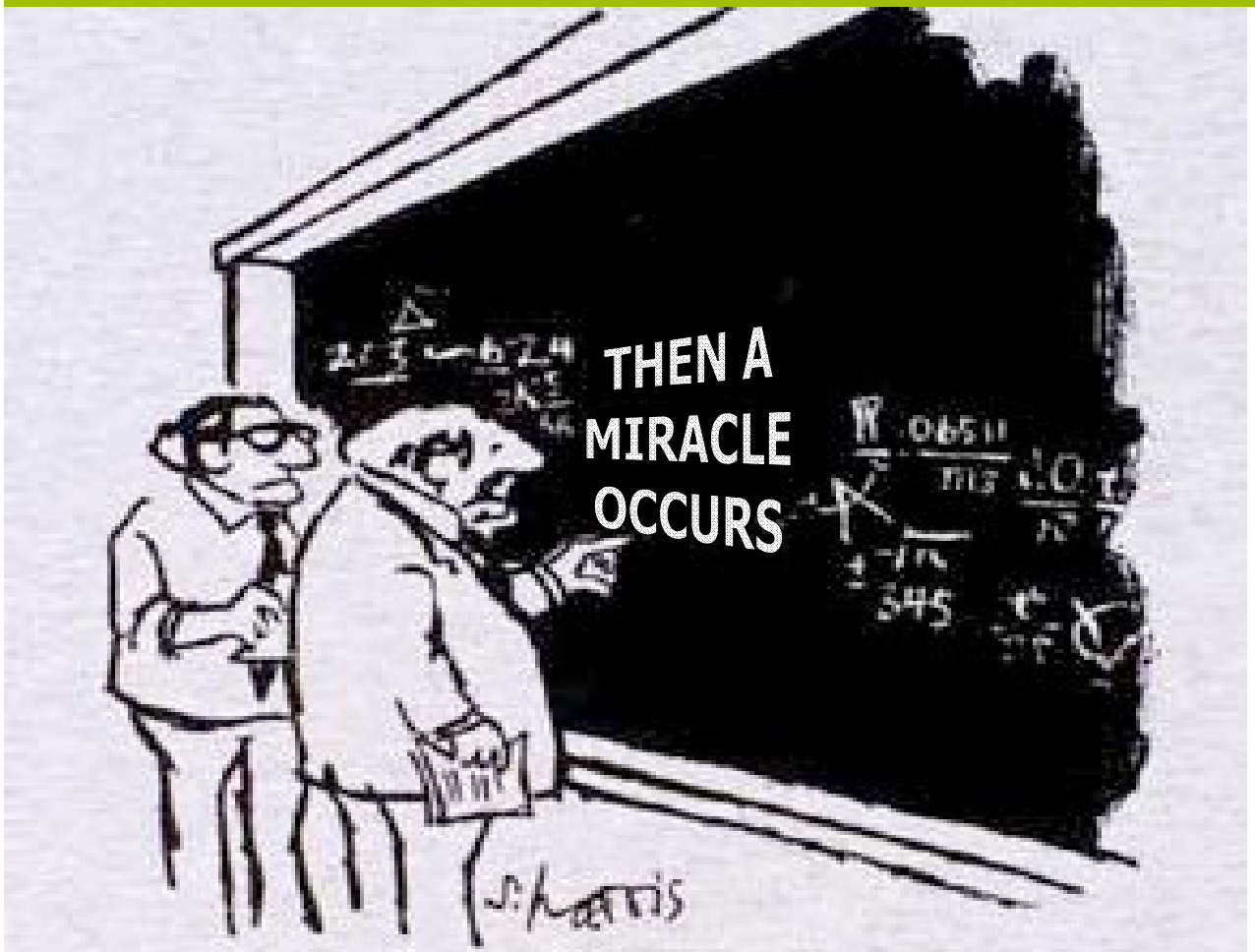
- **Diabetes** patients received **45%** of indicated care.
- **Hyperlipidemia** patients received **49%** of indicated care.
- **CAD** patients received **68%** of indicated care.
- **HTN** patients received **65%** of indicated care.

Source: Rand

How Kaiser Permanente is crossing the chasm



Turning Evidence Into Quality improvement



The Miracle In The Middle

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Turning Evidence Into Quality improvement

Success Factors:

- Integrated delivery system; organized medical group
- Process redesign
- Advanced information technology
- Financial Alignment (Pre-payment)
- Patient Engagement

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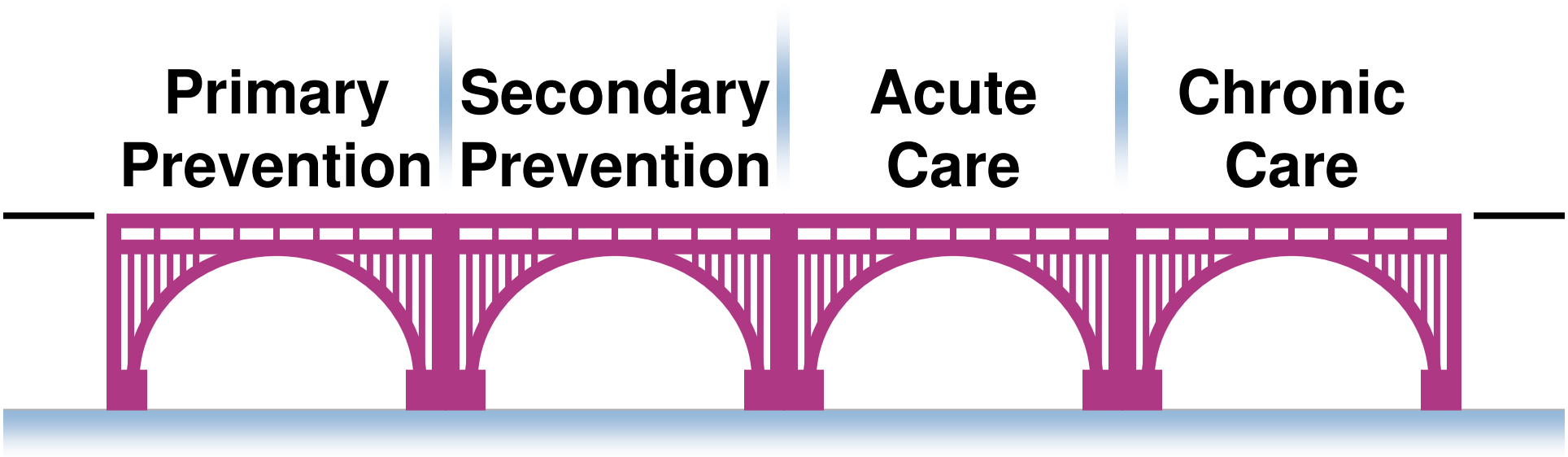
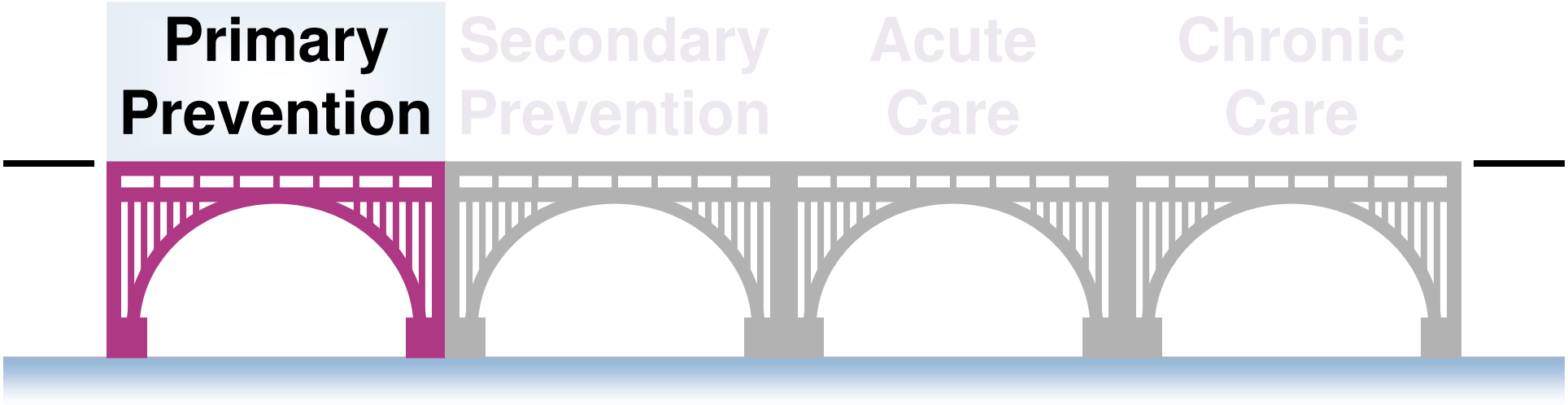
Our Systematic Approach



…and accountability across the Continuum of Cardiovascular Disease and from "cradle to grave".

Crossing the Chasm – Primary Prevention



Delivering the Benefits:

- Modify Lifestyle
- Increase HTN control
- Smoking Cessation
- Decrease LDL Cholesterol levels

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Primary Prevention
Increase Hypertension Control

Where we were:

- 36%

What we did:

- Clinical Champions
  - Mimic Pharmaceutical “detailing”
- “Revealing Reports”
  - Multi-level control rate reports
- “Data that Drives”
  - Tools to pinpoint gaps in blood pressure testing, treatment or documentation
- Process Redesign
  - “Check, Treat, Repeat”
  - Treatment intensification to target
  - Medical Assistant BP Checks

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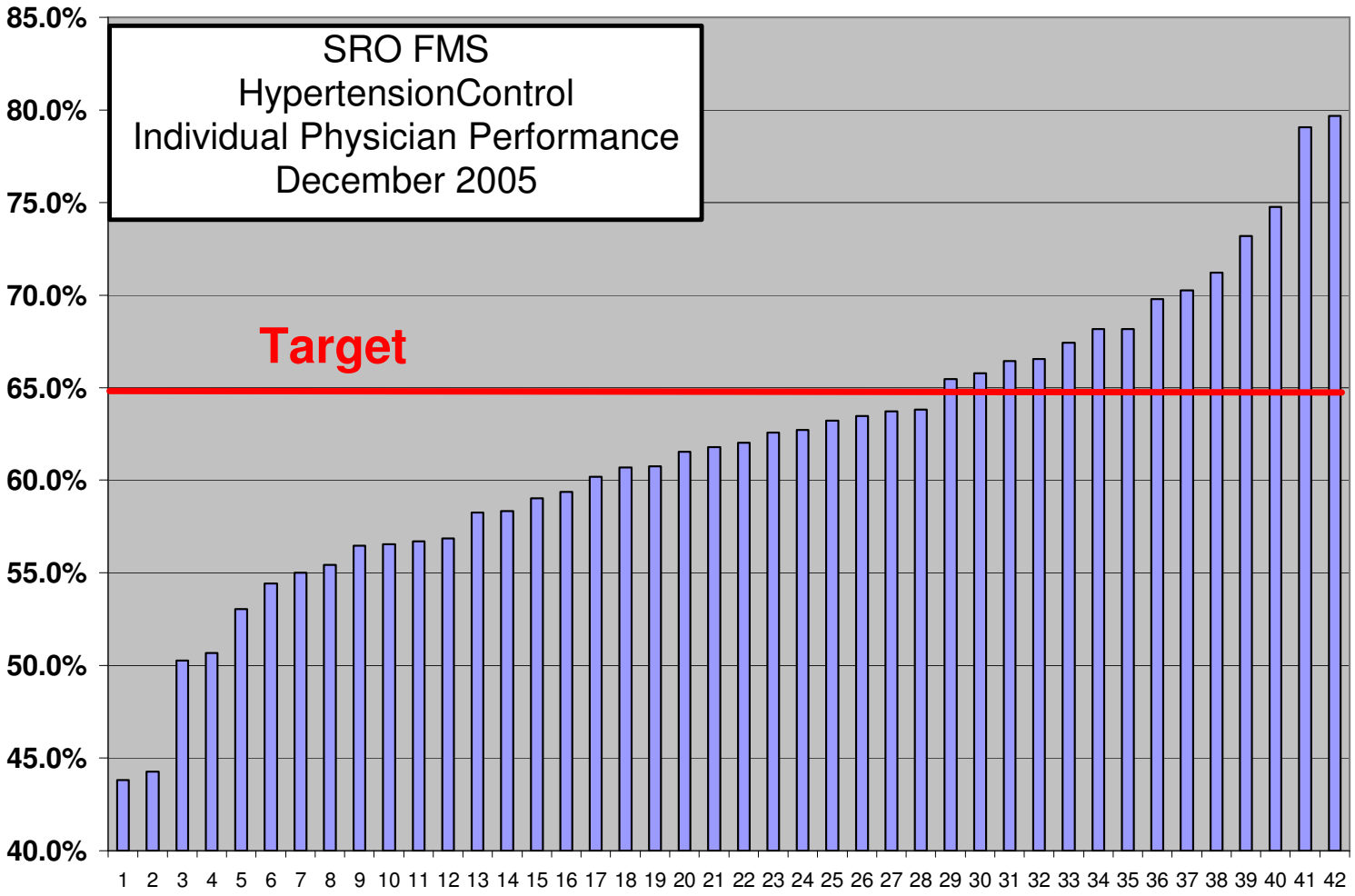
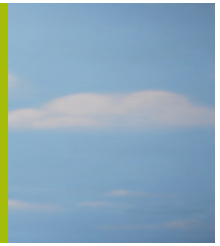
Primary Prevention
Example Provider Level Report



Primary Prevention
Increase Hypertension Control

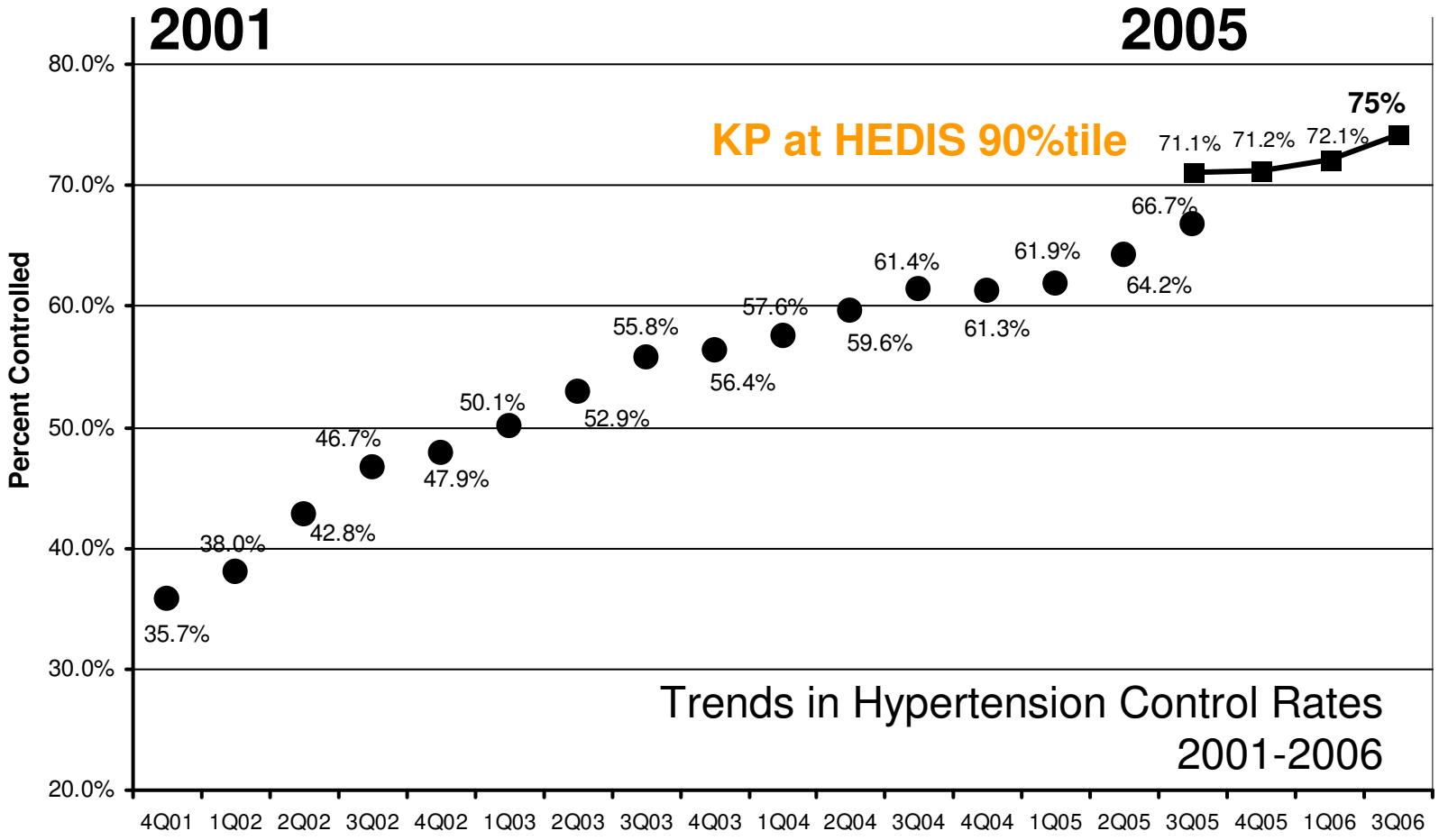


Making the process clearer and easier…

Action	Description	Outcome
Check	Was BP taken and recorded?	Documentation
	Was BP high?	(Determines denominator for measure 3)
Treat	Was treatment intensified ?	Upward titration of dose and/or medication type
Repeat	Was there another BP taken within 4 weeks?	Follow up care
	Was the f/u BP lower than the initial BP?	Better Control of BP
	Was the f/u BP in control?	Controlling BP

Primary Prevention
Increase Hypertension Control

…led to significant gain.



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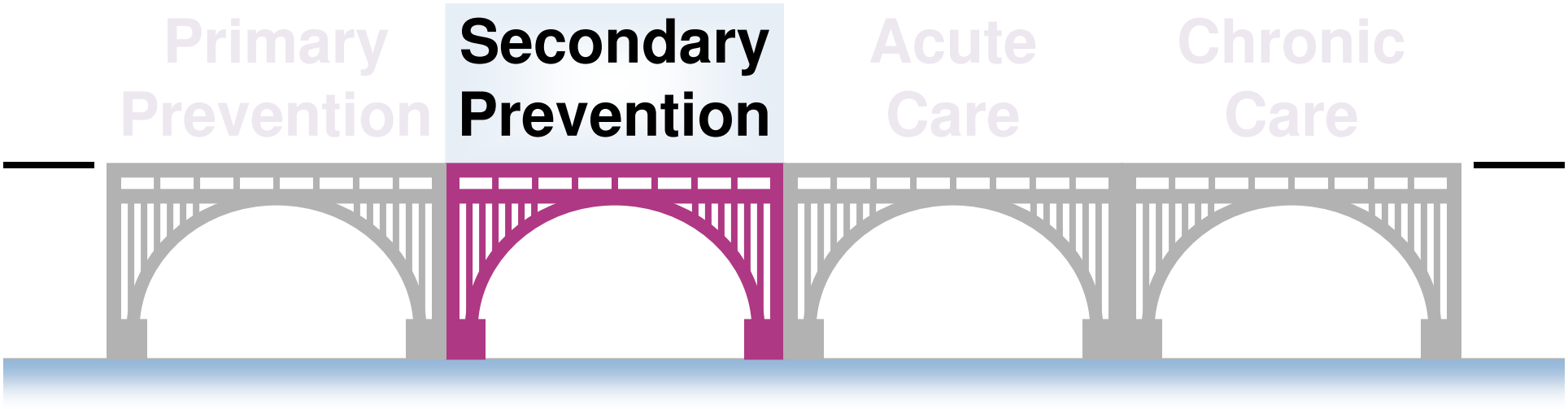
Crossing the Chasm – Secondary Prevention



Delivering the Benefits:

- **Heart protective meds:** Aspirin, Statin, ACE-I, and Beta-blocker
- **Lifestyle changes:** **Tobacco Cessation, Physical Activity, Healthy Eating and Weight Management**
- **Risk factor control:** **Blood Pressure, Cholesterol and Blood Sugar**

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Prevent Heart Attacks & Strokes Everyday

TAKE WHAT YOU NEED

TO HELP PREVENT A STROKE AND HEART ATTACK

If you have:
- Diabetes
- Heart Disease
- Peripheral Arterial Disease
- Chronic Kidney Disease
- Stroke
- Abdominal Aortic Aneurysm

Taking four medications:
- ACE Inhibitor
- Beta Blocker
- Statin
- Aspirin

and making healthy lifestyle choices can **reduce your chances of having a stroke and heart attack.**

ASK YOUR HEALTH CARE TEAM
IF THESE MEDICATIONS ARE RIGHT FOR YOU

PHASE
PREVENT HEART ATTACKS AND STROKES EVERYDAY

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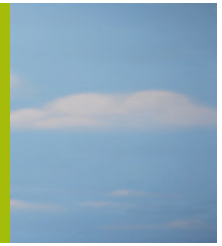
Secondary Prevention
PHASE and Diabetes



What we did:

- Leadership
  - Local champions and infrastructure
- Revealing Reports / Data that Drives
- Information Systems
  - Preventive Health Prompt
  - Best Practice Alerts in KPHealthConnect for 16 specific subgroups
- Process Redesign
  - Implemented Panel Management in Primary Care
  - Utilized Pharmacists to outreach and initiate PHASE meds in eligible members
- Financial Incentives
  - Operational budget allocations
- Engaged patients
  - Video testimonials on MD Home pages
  - Implemented Insulin Start Classes
  - Member self-titration instructions

Secondary Prevention
Diabetes – A1c Control

Preventive Meds
1. Aspirin
2. Statin
3. ACEI
4. BB

CV Goals:
7. Glucose control

Lifestyle Changes
8. Nutrition
9. Exercise
10. Weight loss
11. Smoking Cessation

Medication Safety
12. K and Cr for diuretics annually
13. K and Cr for ACEI annually

Vaccinations
14. Pneumovax
15. Annual flu vaccine

And whatever the patient came in to see you about!

16. Renal
17. Retinal
18. Foot

General Prevention
19. Colorectal cancer
20. Breast cancer
21. Cervical cancer
22. Osteoporosis

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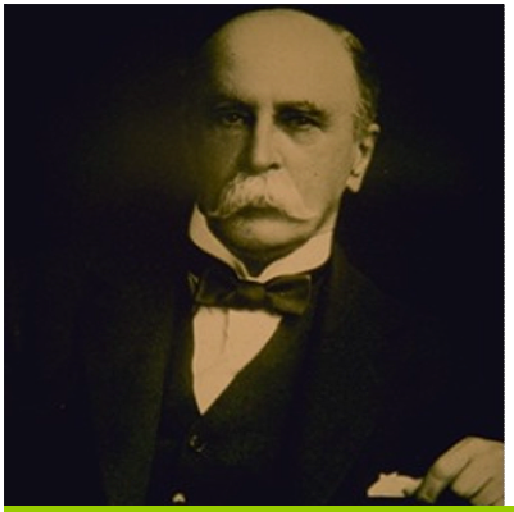
What's the Problem?

I'm doing everything as I was trained to do -- I can't work faster!



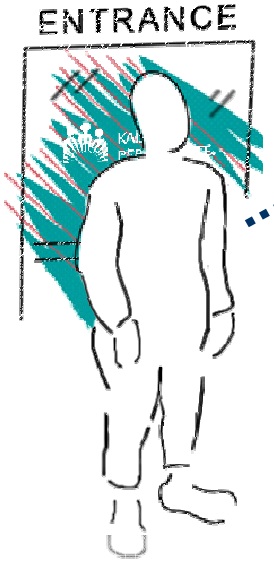
The Traditional Model Of Care

- One patient at a time
- Only know about patients who appear in your office
- No use of IT
- Limited use of "extenders"

New Model Elements

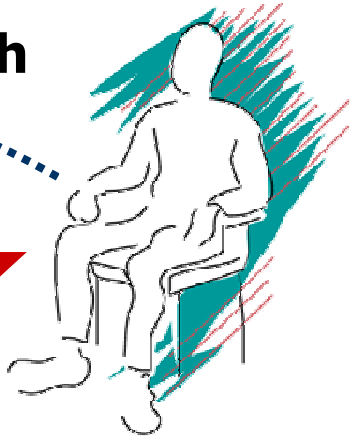
- Accountability for panel/population
- Use of EMR, registries, internet
- Team care (including pt)
- Moving care out of Dr. office

Secondary Prevention
Comprehensive Diabetes Care



Inreach (DOV+)

Outreach



Member Engagement

What: KPHC functionality
Clinic Workflows
Where: Pt in clinic
Who: DOV+ includes:
Reception
Medical assistant
Doctor
AVS/Passport
Clinical health educators
Specialty care providers

What: PMT / Panel Management
Where: Pt at home
Who: PMAs
Nurses
Pharmacists

What: Now: A1C Control tools (e.g. videoclips, secure messaging, educational resources)
Future: Passports, eCare, MyChart
Where: Pt on Internet
Who: Member and family/caregivers

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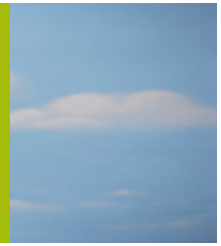
Secondary Prevention
Panel Management Work Flow



Start

Program Assistant:
Prints 10 structured worksheets containing CV risk factor information including:

- Labs
- Medications
- Blood pressure
- Immunizations
- Allergies
- PCP visit info
- Care Management or classes

MD:
reviews worksheets, identifies appropriate interventions, and checks off instructions for Program Assistant to communicate to the patient, including:

- Lab studies
- Medication adjustment
- Referrals
- F/U appointments

Requires approx. 15 min per 10 worksheets

Program Assistant:

- Contacts patient in doctor's name and communicates interventions and/or referrals, collects other information (i.e. Aspirin use) as indicated by the physician on the worksheet
- Faxes or calls Rx to Pharmacy
- Sends Lab requisition Books classes/ TAVs/appointments
- Enters data
- Confirms patient allergies and current medications

Requires 10-20 min/pt

Program Assistant:
enters information regarding follow-up interval into a tracking system. And places worksheet in outpatient chart.

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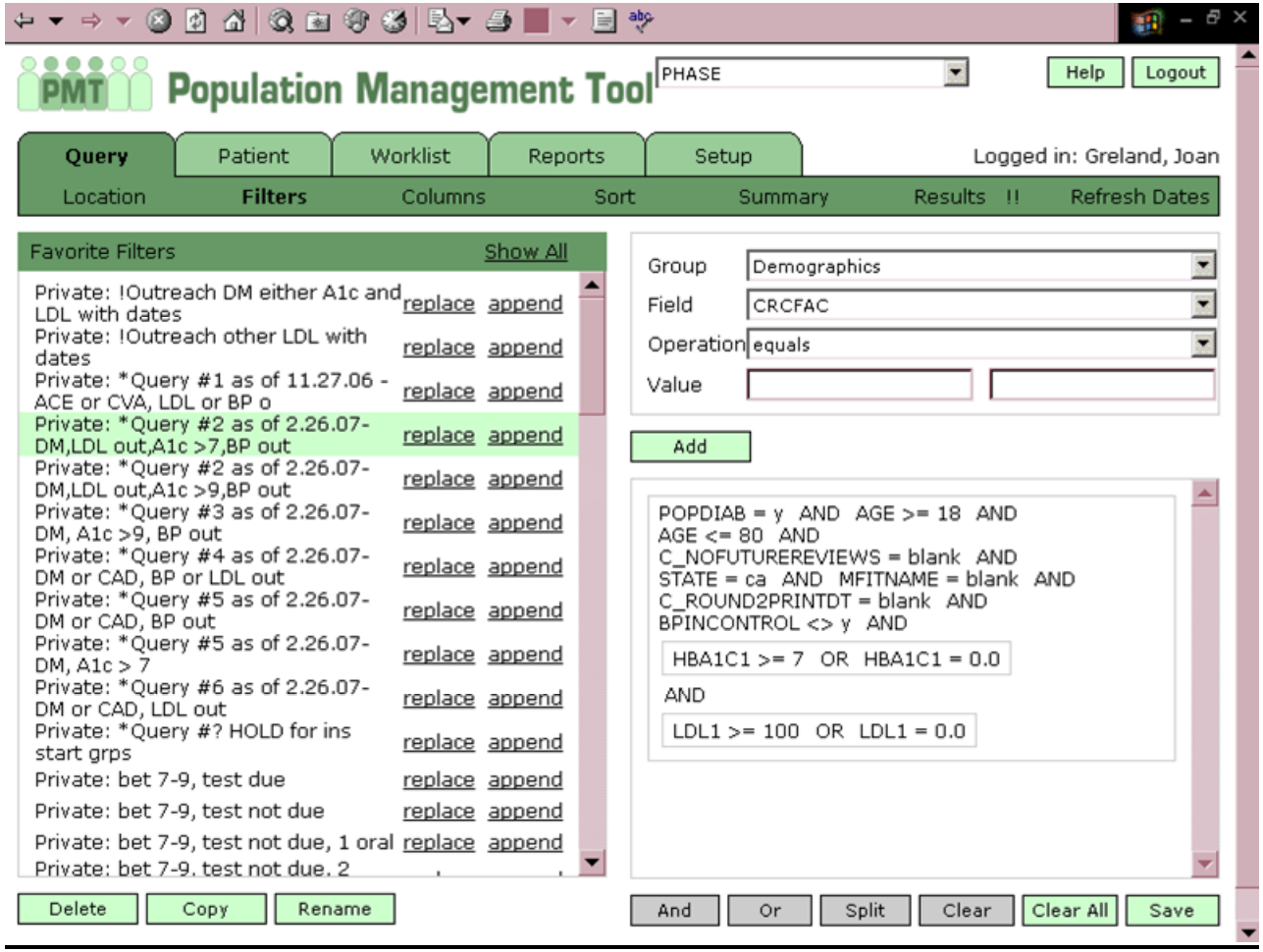
Secondary Prevention
Panel Management Tool Database

Example: Query #2 (DM patients with LDL missing or > 100 and A1c missing or > 7, and BP not in control)



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Secondary Prevention
Diabetes Care – Member Engagement

Your health record | Get health advice | Appointments/Rx refills

My Home Page

- Home
- Find a Health Class at Your Facility
- Learn More About Endocrinology
- Learn More about the KP.org Website
- Managing Your Weight
- PHASE: Prevent Heart Attacks and Strokes Everyday

- Healthy Living Resources
  - Podcasts
  - Videos
  - Online Programs

The Permanente Medical Group
Richard Dlott, MD

Facility
Martinez Medical Offices
Endocrinology Care in Martinez

Address
200 Muir Road
Ensenada Building
3rd Floor - Station G
Martinez CA 94553
Map & Directions

Telephone
Office: (925) 295-6400
Fax: (925) 372-1872
Advice (24 hours)/Messages: (925) 372-1999

E-mail your doctor

Department Hours

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Closed	8:30 am 5:00 pm	8:30 am 5:00 pm	8:30 am 5:00 pm	8:30 am 5:00 pm	8:30 am 5:00 pm	Closed

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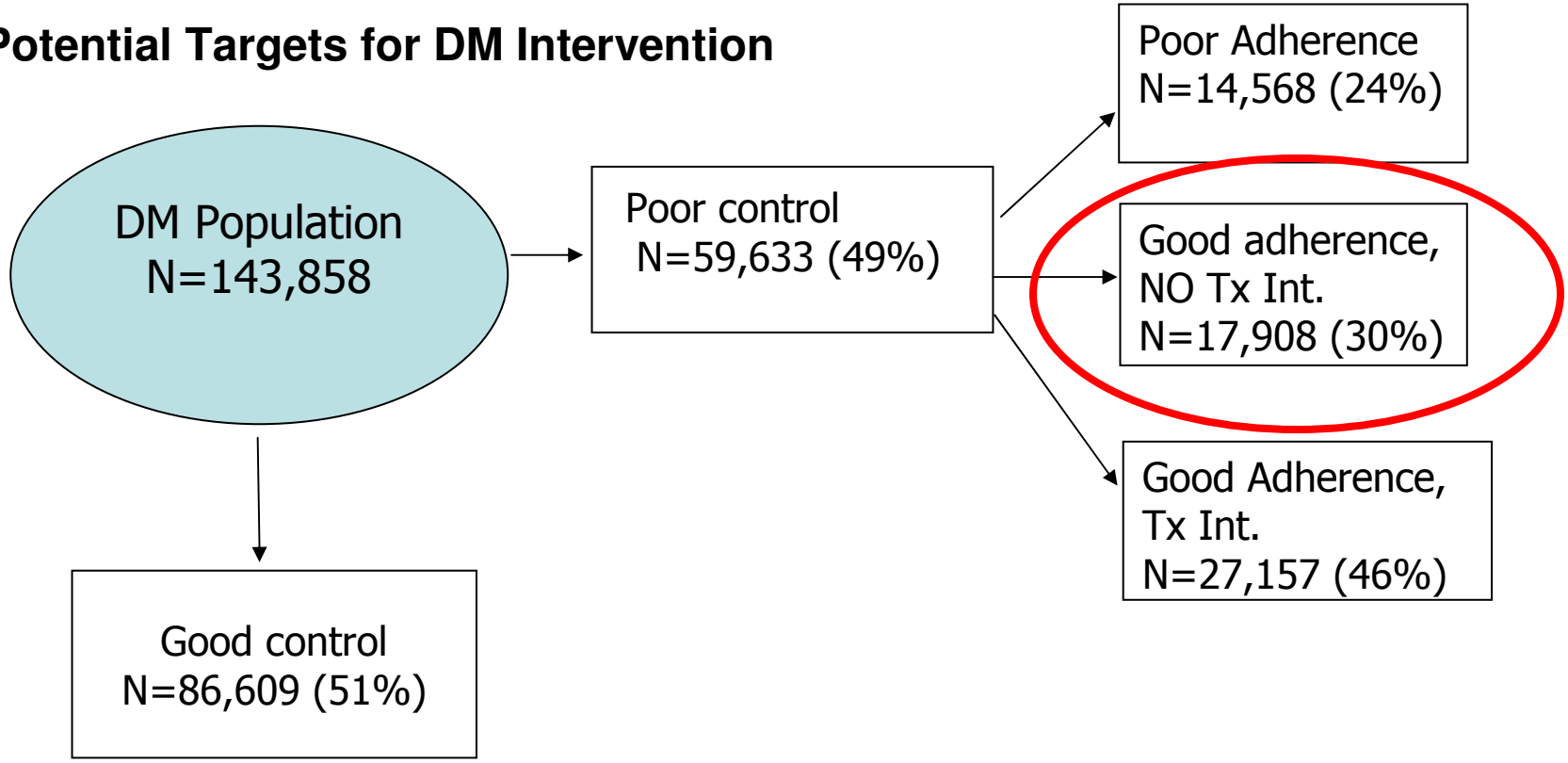
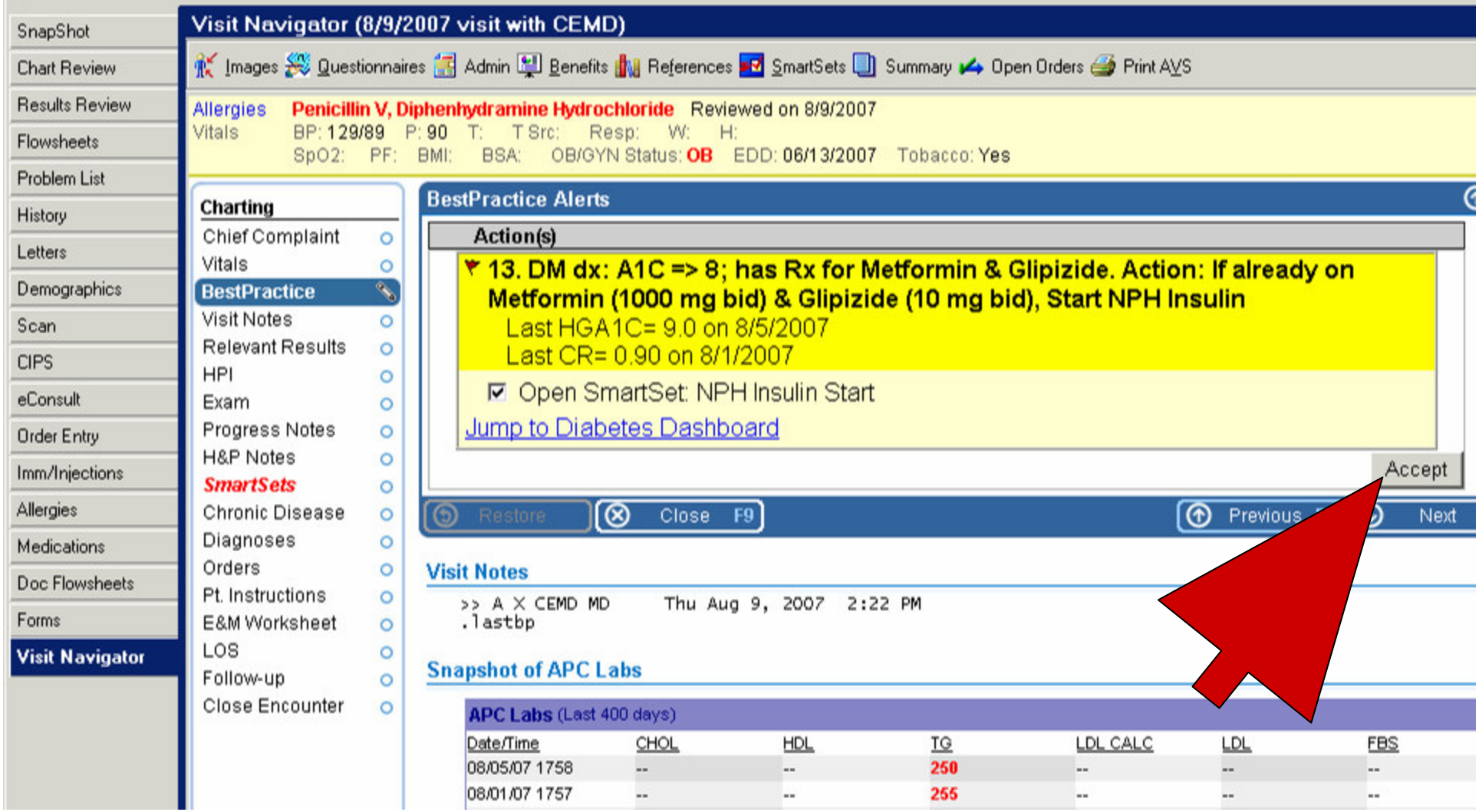
Secondary Prevention
Diabetes

Revealing report on adherence…

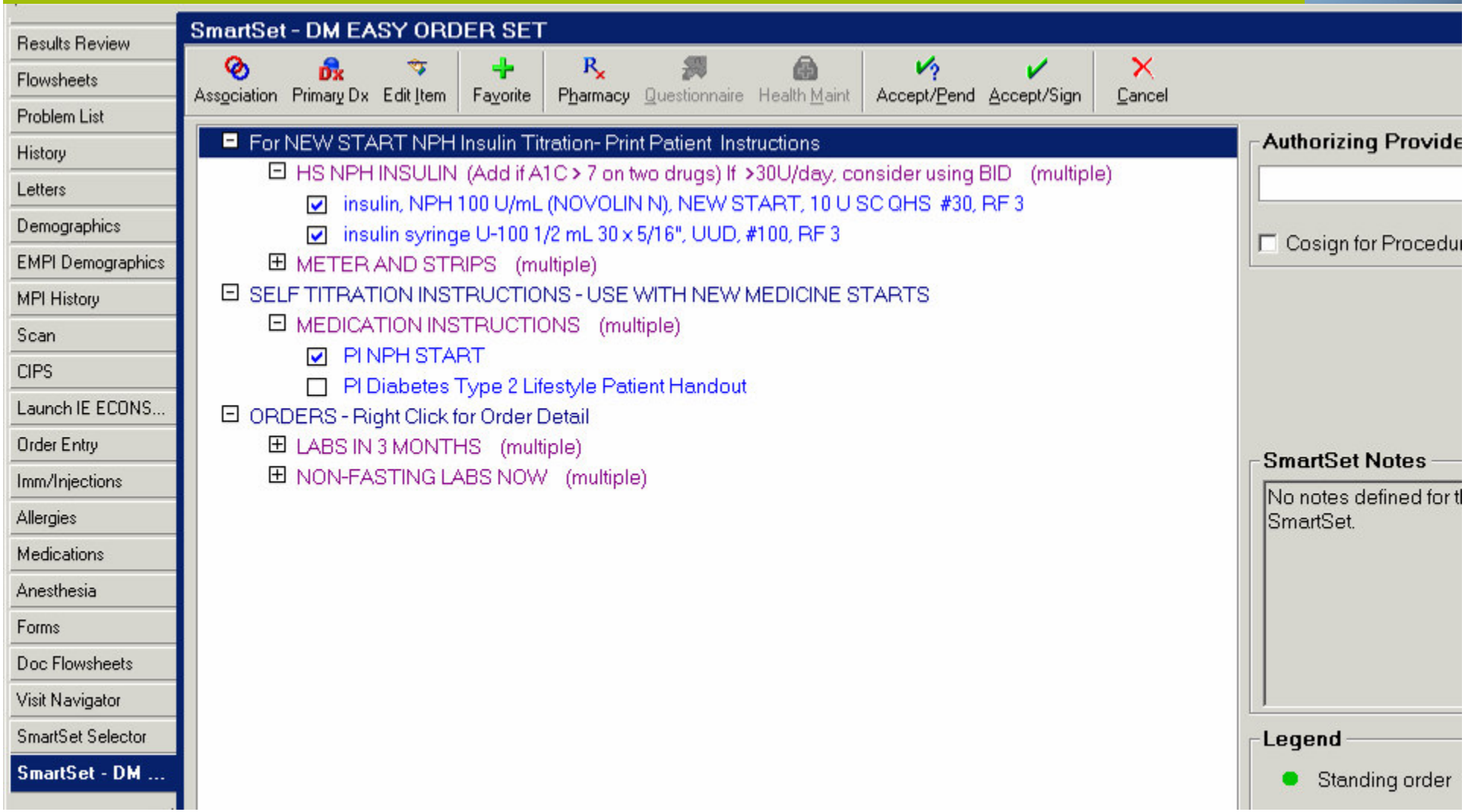
Potential Targets for DM Intervention



Secondary Prevention
Diabetes – Inreach Decision Support

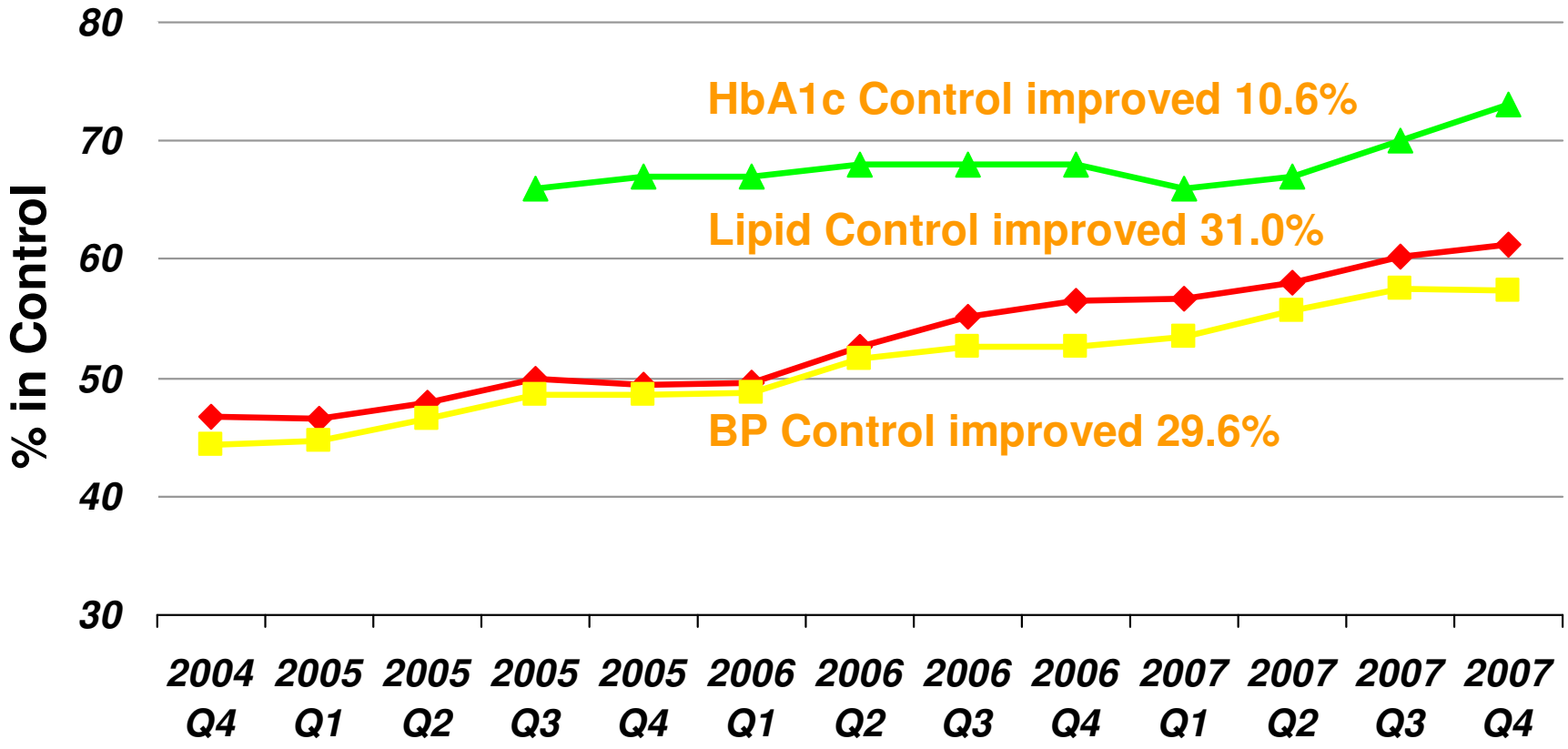


Secondary Prevention
Diabetes – Inreach Decision Support



Secondary Prevention
Results

Multiple Risk Factor Management - A1c control (<8.0) has improved along with Lipids and Blood Pressure 2004-2007



(1) HbA1c Control represented on this graph is A1C < 8.0. A1C < 7.0 and A1C > 9.0 are also measured

(2) Lipid Control measure represents the percentage of PHASE patients with most recent test of LDL < 100 mg/dl in last 12 months.

(3) Blood Pressure Control is defined as BP <= 129/79 for patients with Diabetes and CKD and BP <= 139/89 for all other PHASE patients.

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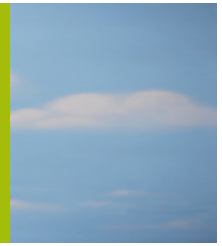
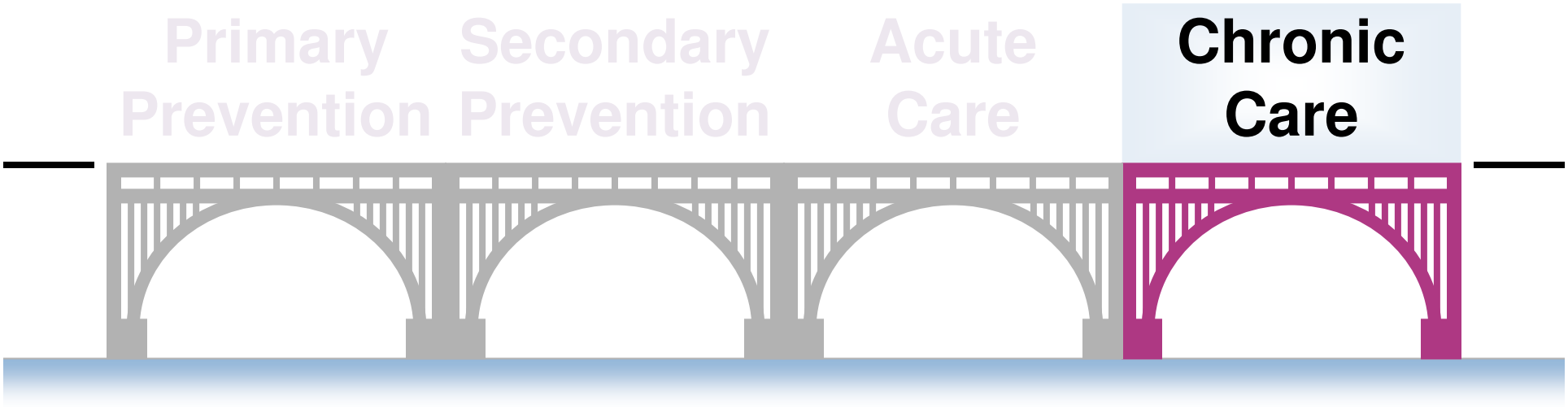
Secondary Prevention
Impact of 2007 Improvements:



- Additional 9,600 patients at LDL target
  - **300 heart attacks/strokes prevented**
- Additional 4,700 People with Diabetes at A1c <9
  - **188 adverse outcomes prevented**
- Additional 13,447 People with Diabetes have BP < 129/ 79
  - **1200 CV events prevented**

Crossing the Chasm – Chronic Care



Delivering the Benefits:

- Stratification by patient status
- Integration across conditions
- Panel management to offload algorithm-driven care
- Member engagement: Self-management skills

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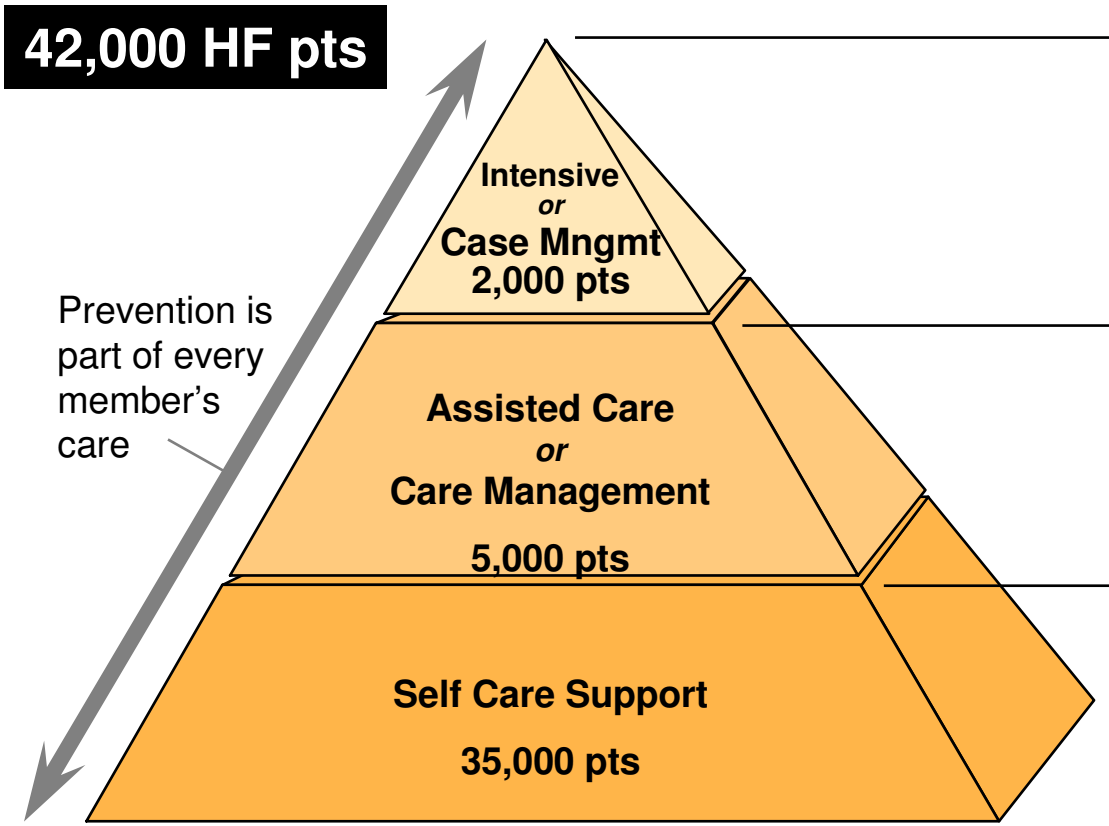
Chronic Care
Heart Failure

Chronic Conditions Management Program for Heart Failure in NCAL



Level 3 – Intensive or Case Management – Heart Failure patients who are at high risk due to complicated and/or unstable condition, poor functional status and/or psychosocial problems. High intensity management of the patient's care is required.

Level 2 – Assisted Care or Care Management – Heart Failure patients with moderate symptoms, sub-optimal medication management, poor self-care skills. Also include patients who are unable to achieve or maintain self-care skills despite appropriate education and support from the APC team.

Level 1 – Self Care Support – Heart Failure patients supported by routine APC team care. Members have mild symptoms & appropriate medication management. Members who may benefit from basic self-care education.
Prevention - The foundation of basic care for all levels.

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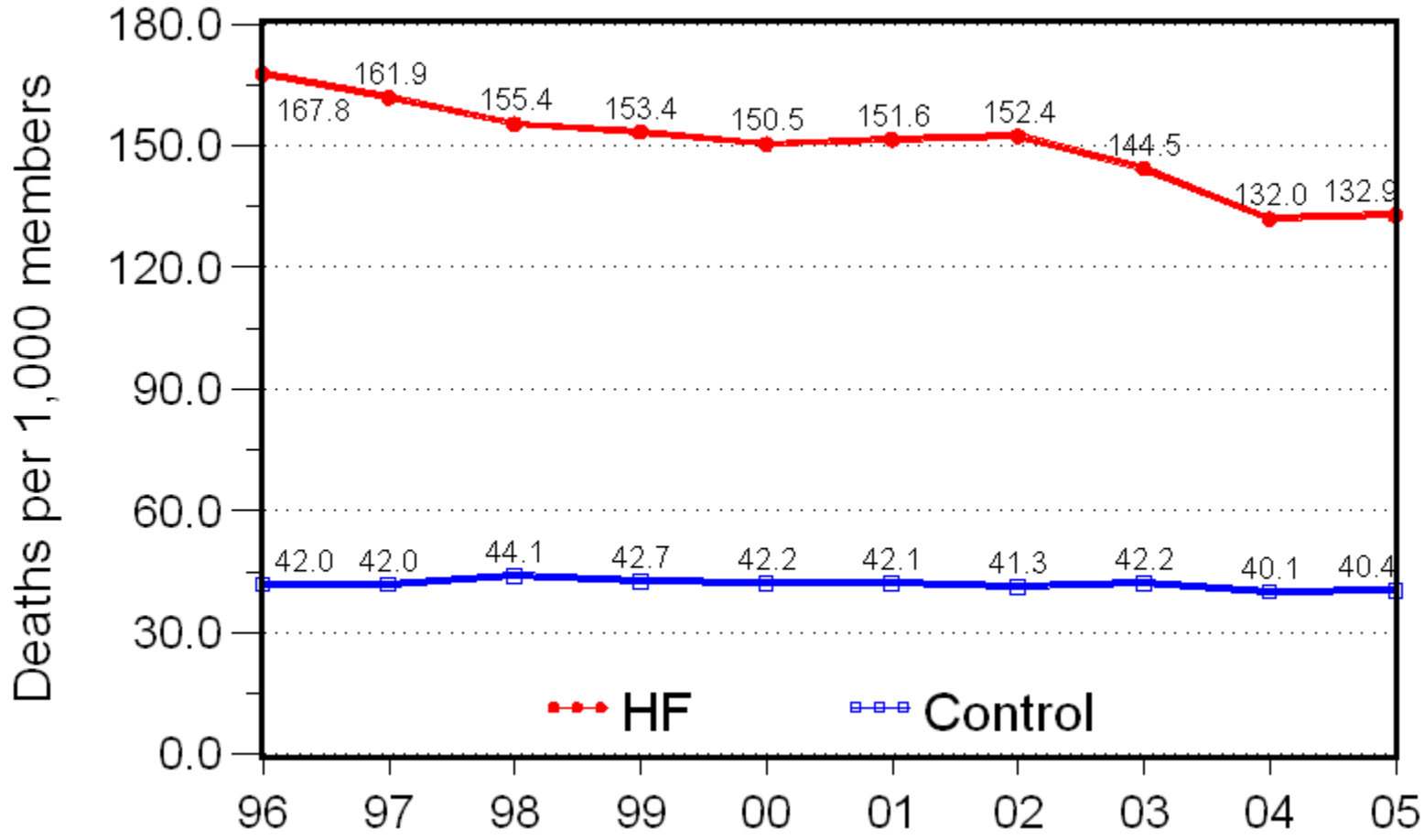
Chronic Care
Trends in HF Mortality

CHF Outcome Data



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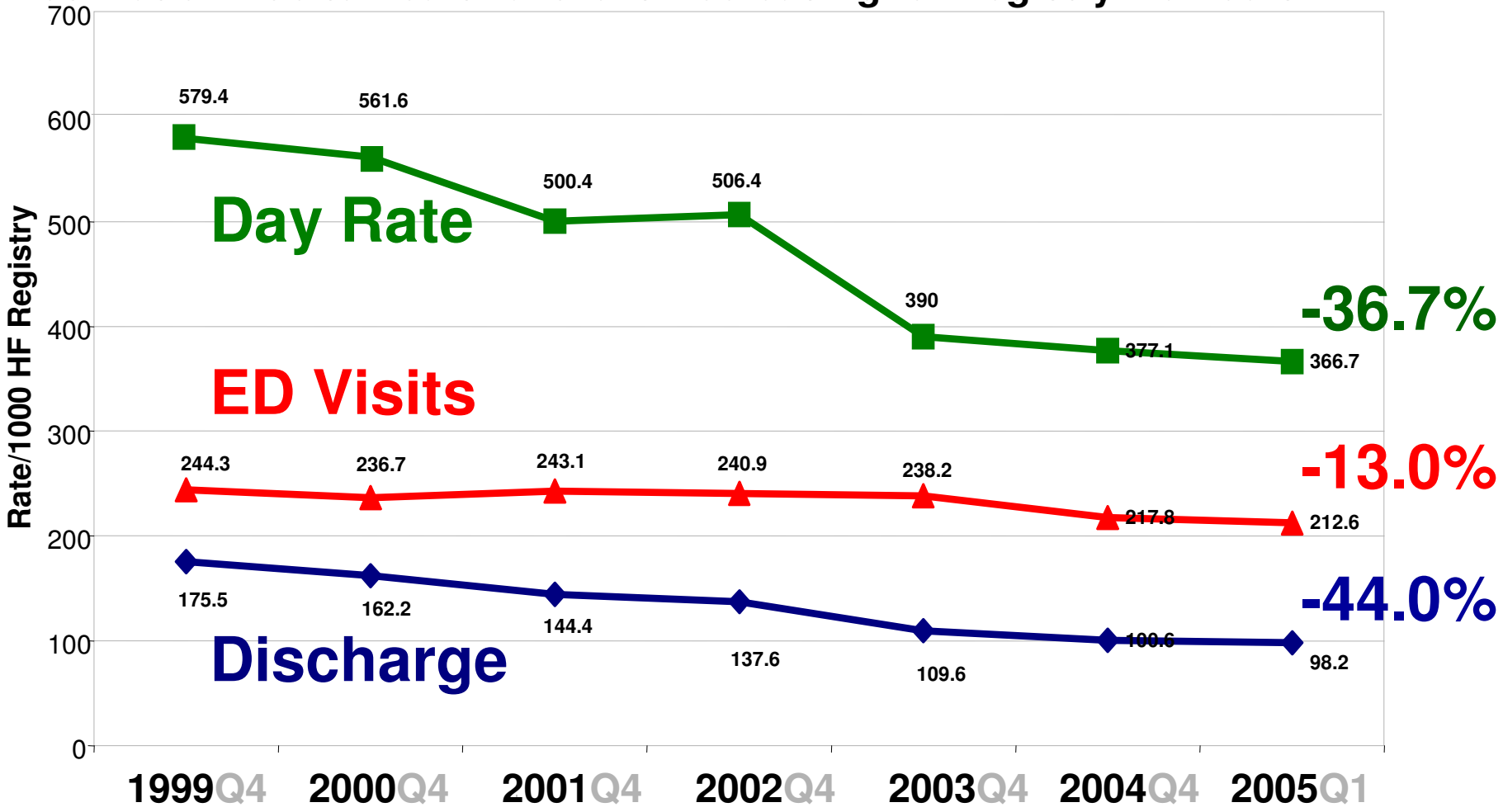
Chronic Care
Heart Failure

Utilization Due to Heart Failure is Decreasing for Registry Members



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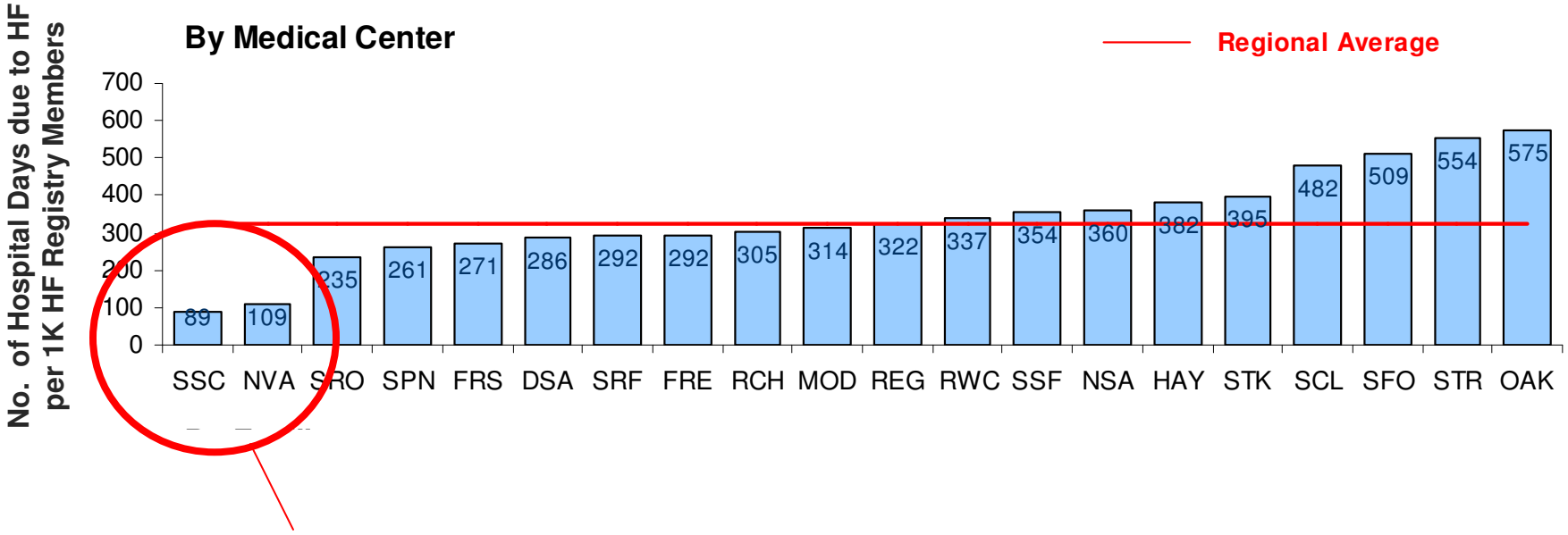
Chronic Care
Heart Failure

No. of Hospital Days due to HF per 1K HF Registry Members By Medical Center, Q4 2006*



Best Performers

SSC and NVA Have the Lowest CHF Hospital Days in Region

*Denominator: Number of adult members in the HF Registry who are continuously enrolled in the health plan. Numerator: Among HF Registry members in the denominator, number of hospital days from discharges with principal diagnoses of heart failure.

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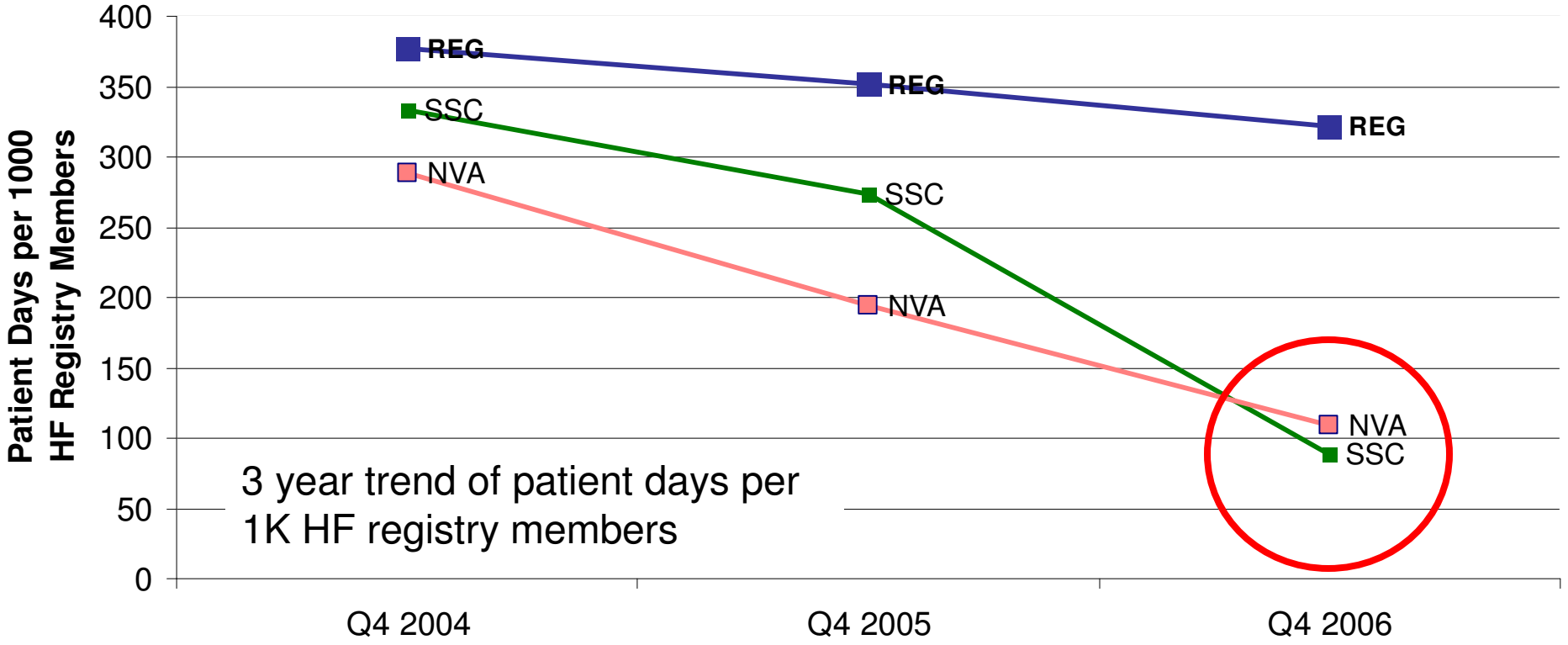
Chronic Care
Heart Failure

Best Performers: NVA and SSC Hospitals Have Strong Decline in Patient Days Over 3 Years



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Chronic Care
CHF High Risk Case Management Program

Transitional Care → Home Telemonitoring

PCP

Define goals for vital signs (weight, blood pressure, O_2 saturation)

Determine necessary interventions

CHF Transitional Care Nurse

While pt in hospital:

(in person)
Describes goal-oriented, time-limited nature of CHF High Risk Program

When pt in home:
(via phone)
Case-managed for 2 weeks via phone until member fully participatory in Home Telemonitoring Program or other appropriate intervention

LVN

When pt in home:
(in person)

1. Reassesses patient for readiness to participate in Home Telemonitoring Program
2. Installs telemonitoring device
3. Provides training
4. Tests telemonitoring device by sending baseline vitals to Tele RN

Telemonitoring Nurse

When pt in home:
(via phone)

1. Monitors daily results of vital signs and case-manages patient via phone
2. Communicates results to PCP as needed

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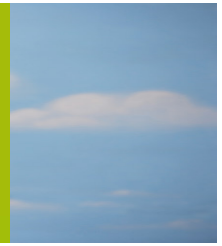

Does Kaiser Permanente prevent Heart Attacks and Strokes Everyday?

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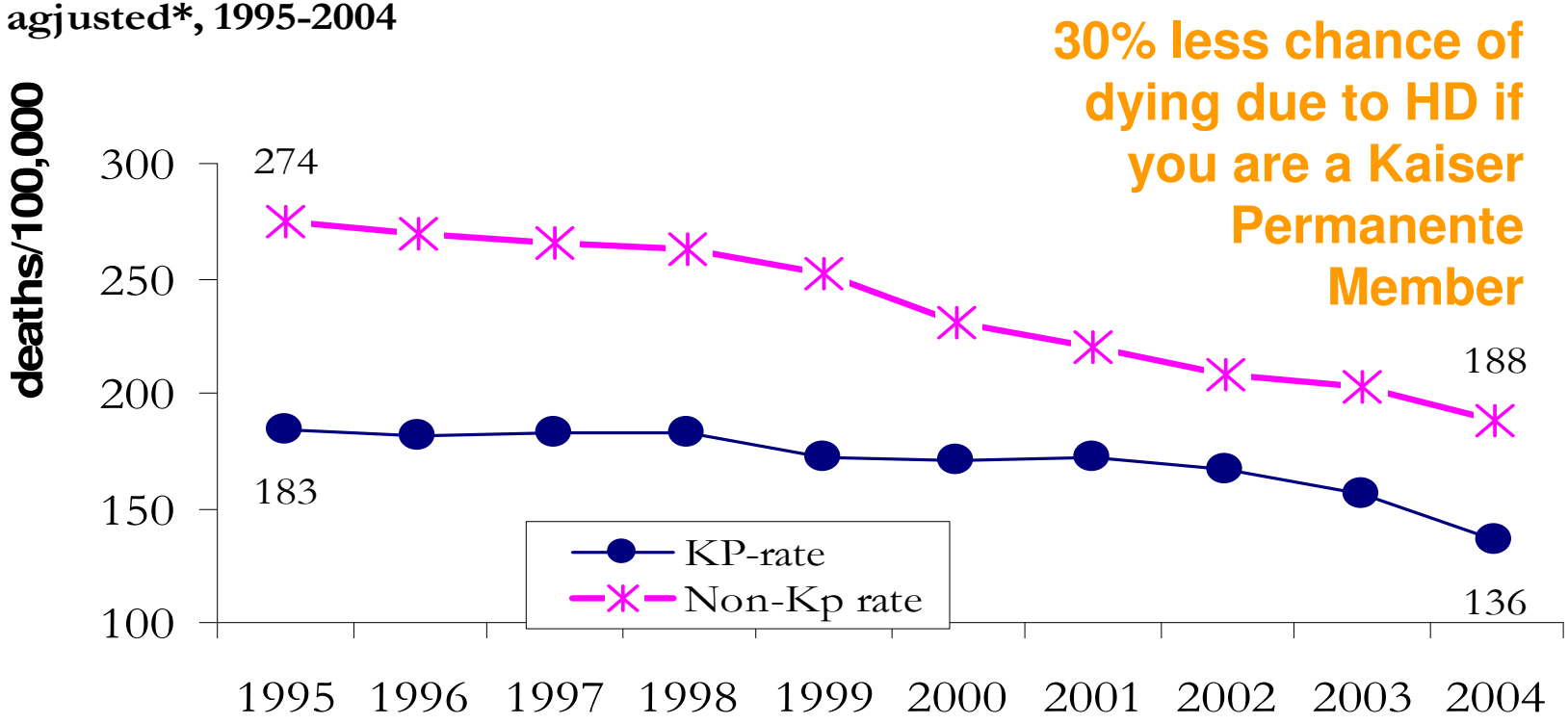
Full Spectrum of Care
Heart disease mortality declining

Trends in Heart Disease Mortality in the population of Kaiser Permanente (N. California) and the rest of California, age-sex agjusted*, 1995-2004



* 2004 KP is the standard pop for the adjustment

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Summary

Using our

- integrated system,
- advanced IT systems,
- Process redesign
- financial alignment and
- patient engagement,

we've made it easier to "do the right thing" across the spectrum of cardiovascular disease, so that cardiovascular disease is no longer the number one cause of death for KP members

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