Disease Management: A New Partner in the Pay-for-Performance Era

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Agenda

- The Cost of Chronic Disease
- DM 101
- Disease Management as a Platform for Practice Integration
- DM Program Results – It's Working
- How can DM help you in P4P?

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The Cost of Chronic Disease

Chronic disease affects ~1/3 of the population but account for ~ 2/3 of Medicare allowed spending

	% of Total Population		% of Medicare Allowed Spending	
Year	**Chronic**	**Non-Chronic**	**Chronic**	**Non-Chronic**
2002	32.5%	67.5%	65.6%	34.4%
2003	33.0%	67.0%	65.7%	34.3%
2004	33.6%	66.4%	65.8%	34.2%
2005	33.7%	66.3%	65.7%	34.3%
2006	33.7%	66.3%	64.6%	35.4%

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The Cost of Chronic Disease

Medicare PMPM spend for chronic disease is about 3-4 X that of non-chronic disease

Year	Chronic	Non-Chronic
2002	$1,233	$310
2003	$1,284	$329
2004	$1,364	$357
2005	$1,435	$381
2006	$1473	$410

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Chronic Conditions – US Prevalence and Expenditures

Disease State	Prevalence (millions)*	Total Expenditure per Year (billions)	Direct* Expenditure per Year (billions)	Total Indirect** Expenditure per Year (billions)	Total Indirect Expenditure: Lost Productivity / Morbidity	Total Indirect Expenditure: Lost Productivity/ Mortality
CAD	16	$156.40	$87.60	$68.80	$10.20	$58.60
Diabetes (1)	23.6	$174	$116	$58.00	$31.10	$26.90
Hyper-tension	73	$69.40	$51.30	$18.10	$8.10	$10
COPD (2)	11.2	$37.20	$20.90	$16.30		
CHF	5.3	$34.80	$31.70	$3.10		$3.10
Asthma: adults & children (3)	22.2	$18	$10	$8		
Low Back Pain	22.4	$32	$32	$50 - $100		

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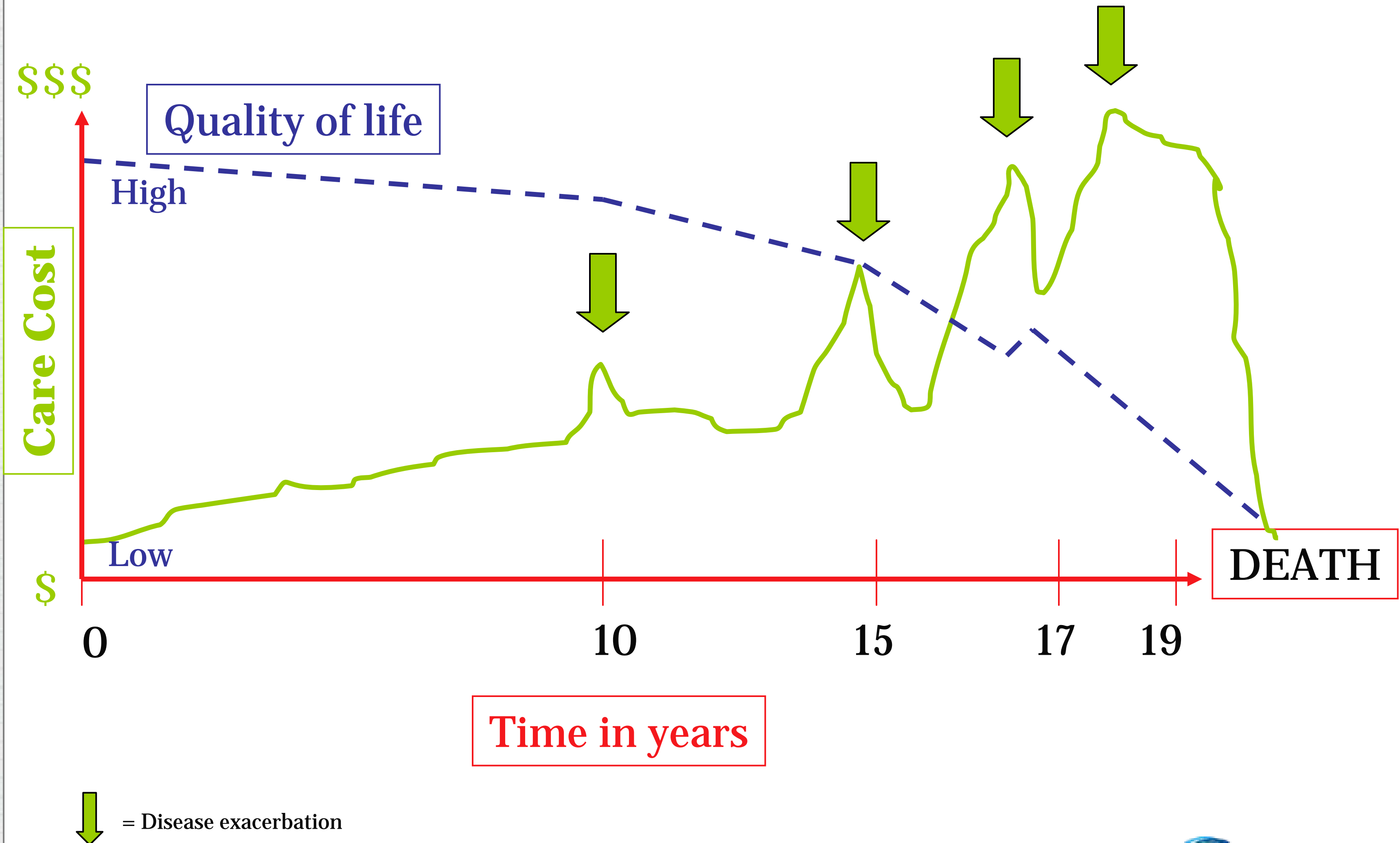
Timeline in Managing Chronic Disease



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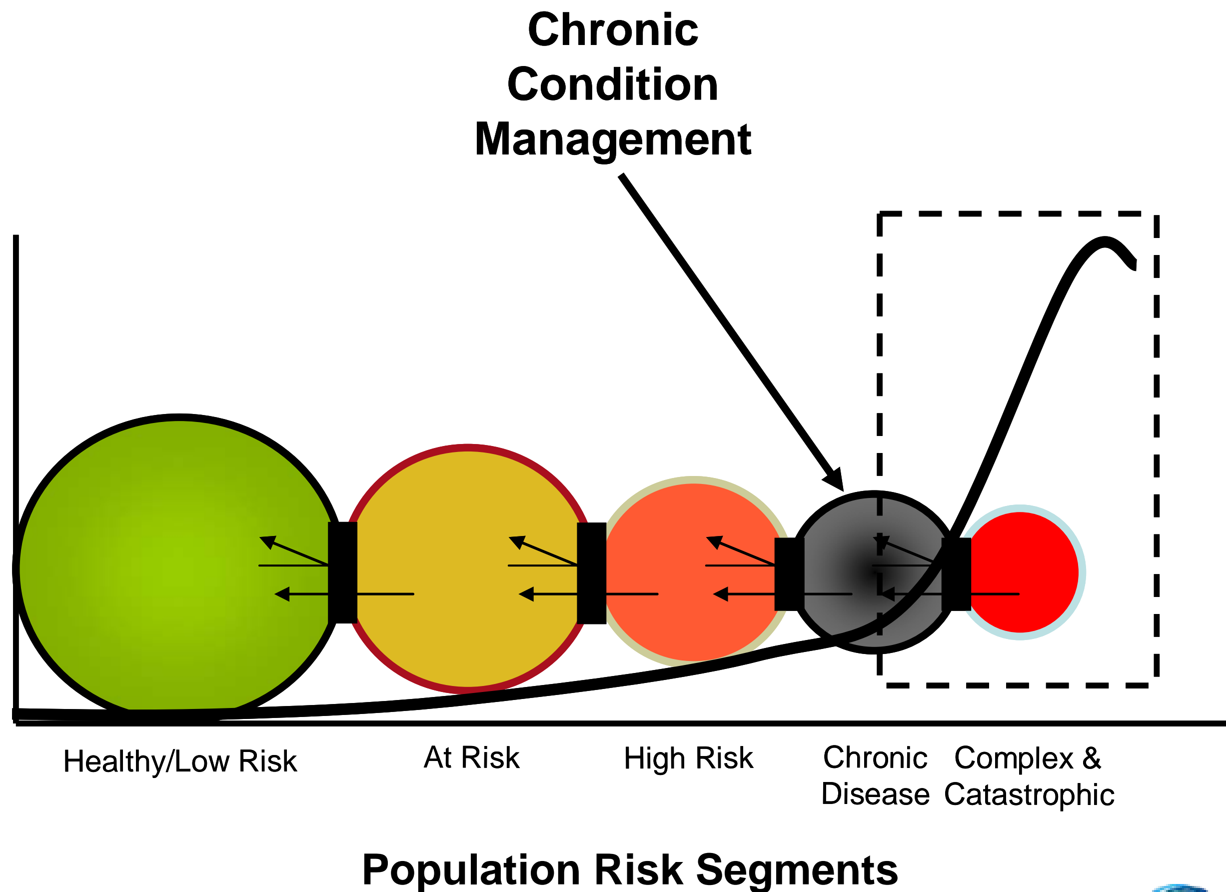
What Did Disease Management Originally Mean?



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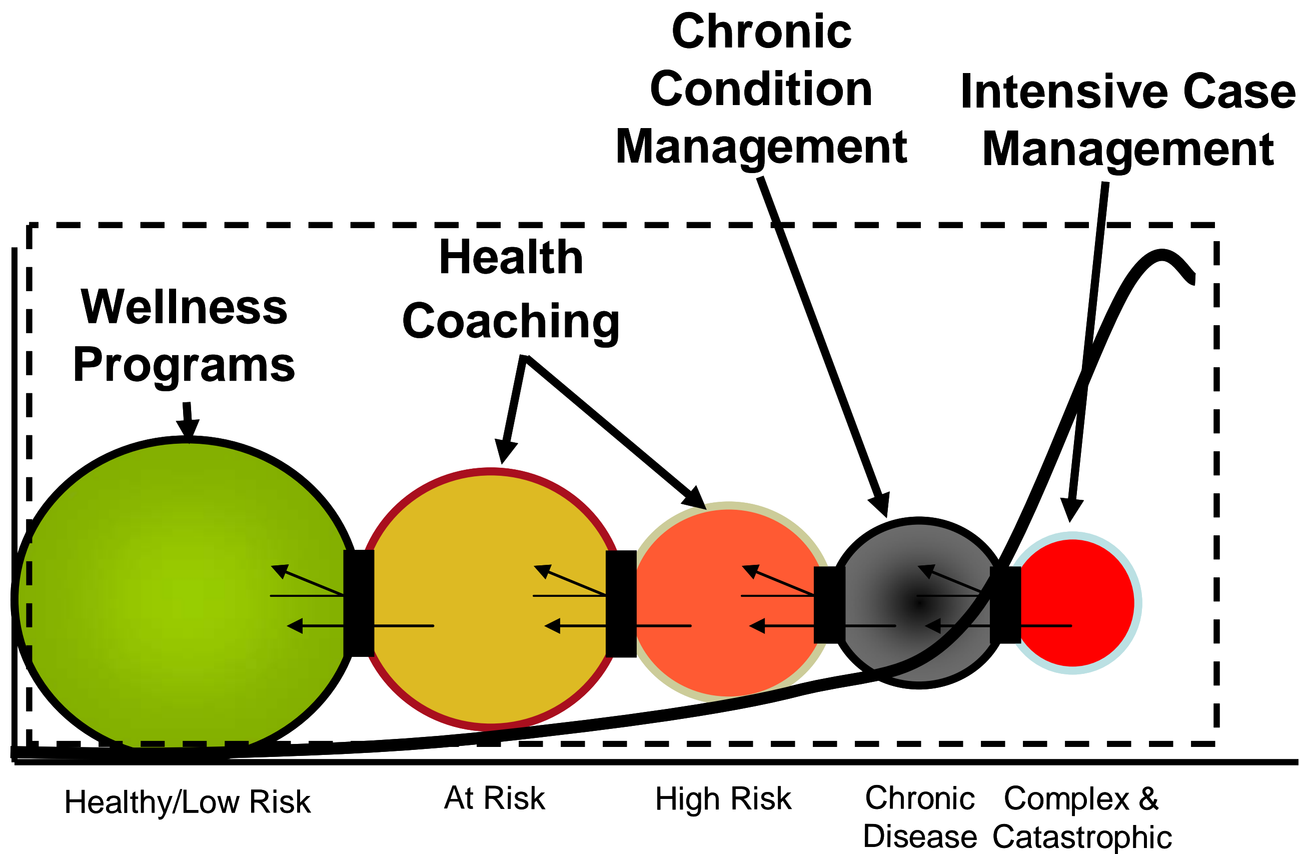
What Does DM Address Now?



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Care Delivery Value Chain
Chronic Kidney Disease – a Complex System

Knowledge Mgmt	Diet	Explanation Of Dx	Education on procedures	Medication counseling	Lifestyle Counseling	Medication F/U Renal transplant counseling
Inform	Cr GFR protein	Ultrasound Angio Biopsy Nuclear scan	Pretesting	Procedure specific measures	Kidney Function tests	Bone metabolism Anemia Kidney function tests
Measure	Office and Lab visits	Office and lab visits	Various	Office and Hospital visits	Office, lab Telephone visits	Office, lab and Telephone visits
Access	Monitor and prevent	Diagnose	Prepare	Intervene	Recovery	Monitoring and Managing

Patient Value

Health results per unit of cost

Nephrologists and other providers need seamless integration

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DM Population Health Improvement Model

- Strategy and process to identify the population
- Comprehensive patient needs assessment
- Proactive health promotion to increase risk awareness
- Patient-centric health management goals and education
- Support patient <u>and</u> primary care provider
- Coach individuals to make behavioral changes
- Report/feedback to patient, physicians, health plan and other providers
- Evaluate and report clinical and economic outcomes with the goal of improving overall population health

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Disease Management Goals

- Promote population health improvement
- Facilitate/coordinate care across the continuum
- Improve the quality of health care and outcomes by:
  - Reducing preventable health care costs
  - Promoting health and wellness
  - Helping to manage chronic conditions

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Disease Management Should NOT be…

- A force that gets between you and your patient
- Care delivery for patients that does not meet your approval
- A way for health plans to deny care
- A system "outside of" evidence-based, mainstream medical care
- Another voice of fragmentation
- A waste of time, money, and precious resources

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Identification & Stratification & Improvement

Client and Vendor Data

Medical Claims • Eligibility • Lab Results
Hospital Discharges • Providers • HRA Data
Pharmacy Claims • Workers' Comp • Vision
Mental Health • Other

Apply Suite of Technology

Pervasive
Predictive Model
Proprietary Algorithms
Ingenix Pro Toolset
Medisave Diabetes
FairIsaac

Identification, risk stratification and further segmentation to locate and enroll participants

Low Risk Eligibles

Member may be eligible for multiple programs

Moderate Risk Eligibles

Member may be eligible for multiple programs

High Risk Eligibles

Health Activation – willingness to play a role in health care

Results: Reports that Show Value to Clients, Participants, and Physicians

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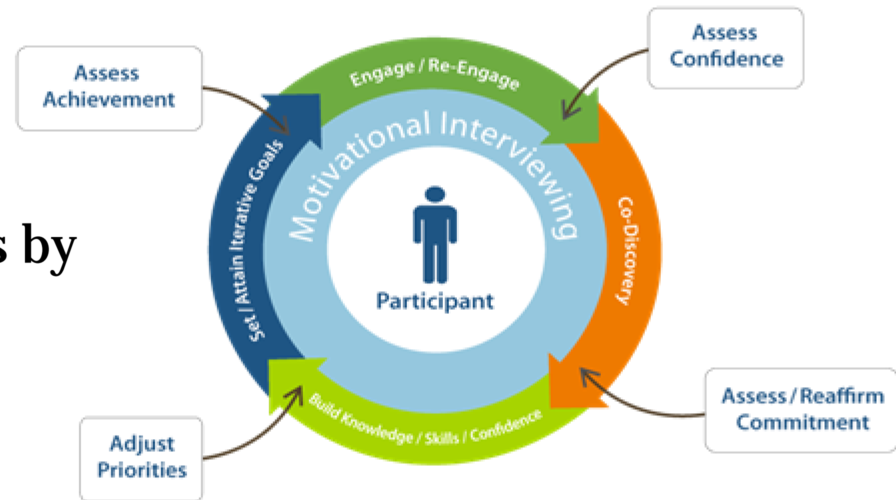
Unique Coaching Model Drives Better Outcomes

- Identified participant works with Health Professional, creating trust and driving ongoing engagement
- U. of Oregon/Brandeis U. study demonstrated improved outcomes by tailoring coaching over standard "information giving"
- Patient Activation Measure segments the population
- "Motivational Interviewing" supports overcoming barriers to behavior change



Patent Pending

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DM as a Platform for Physician Integration

Decision Support for Physicians

Participant Self-Monitoring	Data Capture and Analysis	Health Alert Generation	Health Alerts to Physician
PARTICIPANT	**LIFEMASTERS**	**LIFEMASTERS**	**PHYSICIAN**
• Vital signs and symptoms • Biometric monitoring	• Choice of easy-to-use methods • IVR, Web, Connected device • Customized for co-morbidities • MD approved thresholds • MD Calling Campaigns	• Alert generation • Verified by the LifeMasters nurse • Provides feedback to support coaching	• Customized parameters • Only actionable information sent • Best practice support • Early intervention

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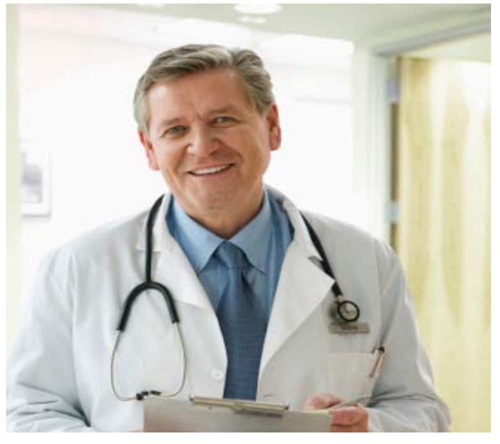
Disease Management as Platform for Physician Integration



- Provides real-time, actionable information to support the plan of care
- Incorporates easily into existing practice patterns
- Provides data and support for Medical Home and P4P initiatives
- Enhances participant engagement and improves outcomes

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⚠ HEALTH ALERT ⚠

Physician: please review immediately

To: Dr. David Hayward, Cardiology, **Fax #** (650) 777-1212, **Phone #** (650) 123-4567

Patient: John A. Doe **Gender:** Male **DOB:** 7/4/1952 (age 51)
Pt. Phone: (415) 555-2222 (home) **Ethnicity:** African-American
(916) 999-0277 (cell) **Emergency Contact:** Mary Doe (wife)
Health Coverage: USA Health Plan **Emergency Contact phone:** (916) 999-8161 (c)

Reason for alert: **Weight gain, Edema; Hyperglycemia**

Nurse assessment: (by phone 8/21/03, 9:30 a.m. PDT - patient time zone)

(1) Patient reports weight is 155 lbs., up 5 pounds in last 4 days
(2) Two episodes of SOB during routine activity in last 24 hrs
(3) Moderate swelling of ankles, lower calves
(4) Patient says, "I have been drinking more fluids lately due to the hot and humid weather."
(5) Patient reports skipping morning diuretic dose 8/17,18,19 due to showing out-of-town guests around the city
(6) Patient reports blood glucose has risen sharply over past week.
(7) Reviewed medication schedule and appropriate fluid intake with patient

Plan:

Nurse instructed patient to call the health care provider

Reported by: Jane C. Nurse, R.N.

History (All data is self-reported)
Clinical Conditions: Diabetes, CHF–Class II, Asthma
Allergies: SULFA – rash PCN – rash DOGS – sneezing

Medications:

Lipitor	20mg	QD	Toprol XL	50mg		QD
Lisinopril	20mg	QD	Lasix	20mg		BID
Nitroglycerin	0.4mg	as directed	Lantus	100U/ML	15-22 units	QD
Isordil	10mg	TID	Humalog	100U/ML	0.1-0.2 units	Hourly

Vital signs (Most recent entries from past 30 days):

Date	Vital Signs			Blood Glucose								PeakFlow
	BP	HR	Weight	AM AC	AM 2h/PC	Noon AC	Noon 2h/PC	PM AC	PM 2h/PC	HS	2AM	Best: 500
8/21	119/62	80	**155**	320		376		400		**450**		
8/20			150	180		100		130		220		450
8/19	120/75	72	150	172		140		160		200		
8/18			151	178		150		186		200		
8/17	118/73	66	151	194		156		184	210	206		
8/16			149	125		136		140		136		475
8/15	124/76	67	148	112		128		100				
8/14	119/81	63										
8/13			150									
8/12			149									

Copied Recipients for this report: Marcus Welby, MD, Family Practice. **Phone:** (916) 999-4290 **Fax:** (916) 999-4290

LifeMasters Tracking Information: Report id: 83759, PT id: 17

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Research on Physician Response to Health Alerts

- *Health Alerts* are generated from an information technology system that tracks clinical indicators, biometrics, claims data and nurse assessments against thresholds derived from evidence-based, national guidelines or physician-specific input
- *Health Alerts* provide real-time information on changes in the clinical status of their patients
- *Health Alerts* provide opportunity to intervene early to avoid exacerbations and make course corrections in the treatment plan
- *Health Alerts* "out of bounds" events are triaged by a nurse to determine those that should be acted on by the physician

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Research on Physician Response to Health Alerts

Methodology

- Research based on 104,000 *Health Alerts* by LifeMasters between January 2005 and March 2008

Findings

- 60% of physician follow up activities occurred within 2 days of the alert being sent.
- 87% of physician follow-up activities occurred within 5 days
- 98% of all follow-up activities by physicians occurred within 15 days.
- >85 % of the time, physicians responded to Health Alert results with treatment plan course corrections

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Most Common Conditions to Generate Alerts

- Congestive heart failure (33%)
- Diabetes (25%)
- Coronary Artery Disease (20%)
- Cancer (2 to 4%)
- Other (remainder)

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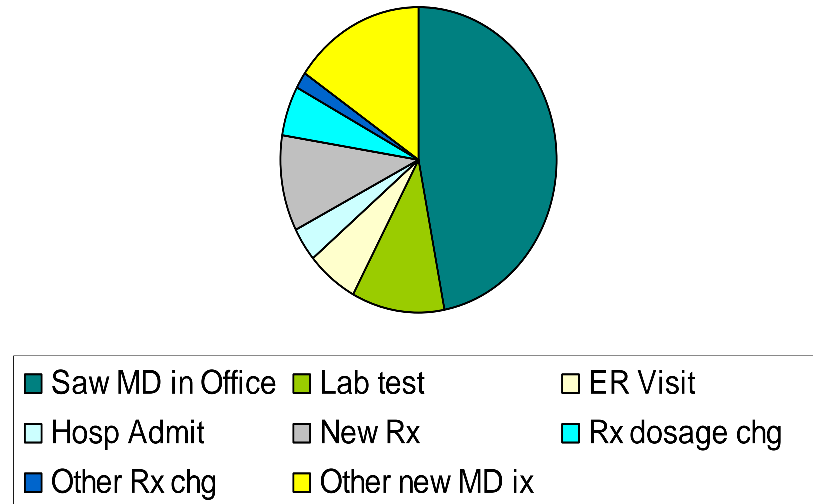
Resulting Physician Interventions

Over 39-months, physicians ordered interventions for patients as a result of *Health Alerts*

- Saw physician in office – 52%
- Had a lab test – 12%
- Seen in the ER – 7%
- Admitted to hospital – 4%
- Started on new medication – 11%
- Medication dosage changed – 6%
- Other medication change – 2%
- Other new physician instructions – 17%



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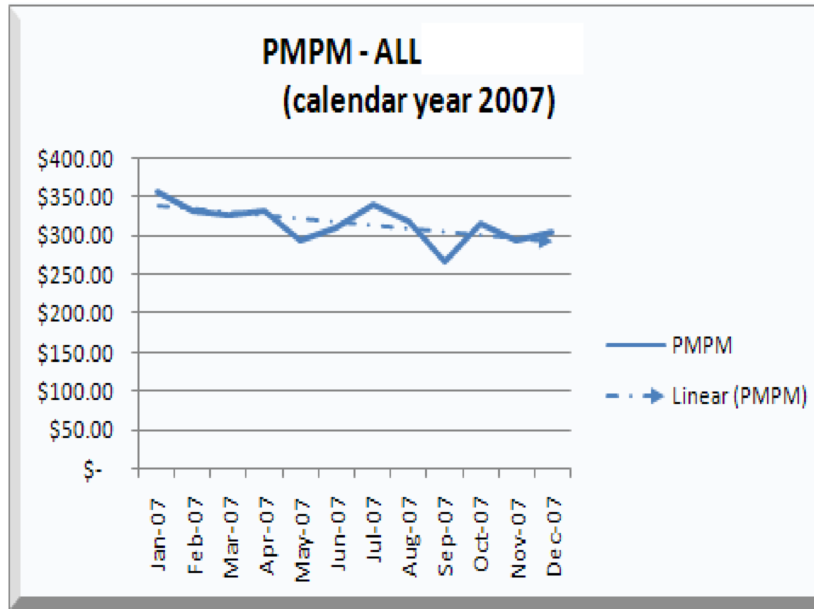
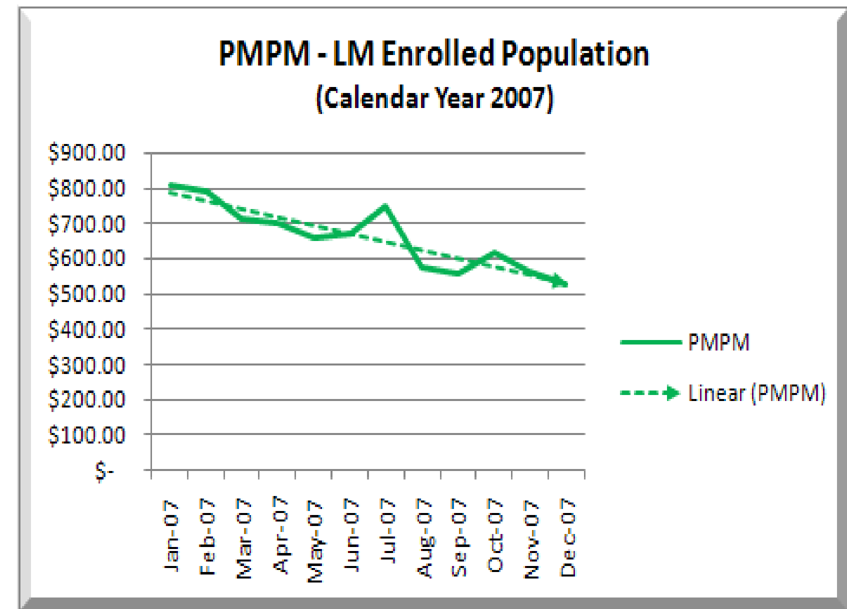
DM Program Results – It's Working

- Fewer hospitalizations, ER visits, and general utilization decreases because participants are clinically improved
- As clinical outcomes improve, so does savings
- Case study: total population, raw claims, no adjustments





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DM Program Results – It's Working

- "LOTIP" : Length of Time in Program
- Clinical outcomes improve the longer participants stay in our program
- Case study : Diabetes (in months)

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Linear (Last LDL < 130 Diabetes)
Linear (LDL Test: Diabetes)
Linear (Advice to quit smoking: Diabetes)
Linear (Last LDL < 100: Diabetes)
Linear (ASA/Antiplatelet Therapy: Diabetes)
Linear (Last BP < 130/80: Diabetes)
Linear (Last BP < 130/80: Diabetes)
Linear (Pneumococcal Vaccine: Diabetes)

Improvement in all diabetes metrics with increased time in program; excepting for Influenza vaccination and LDL<100 which decreased (dotted lines = trend lines)

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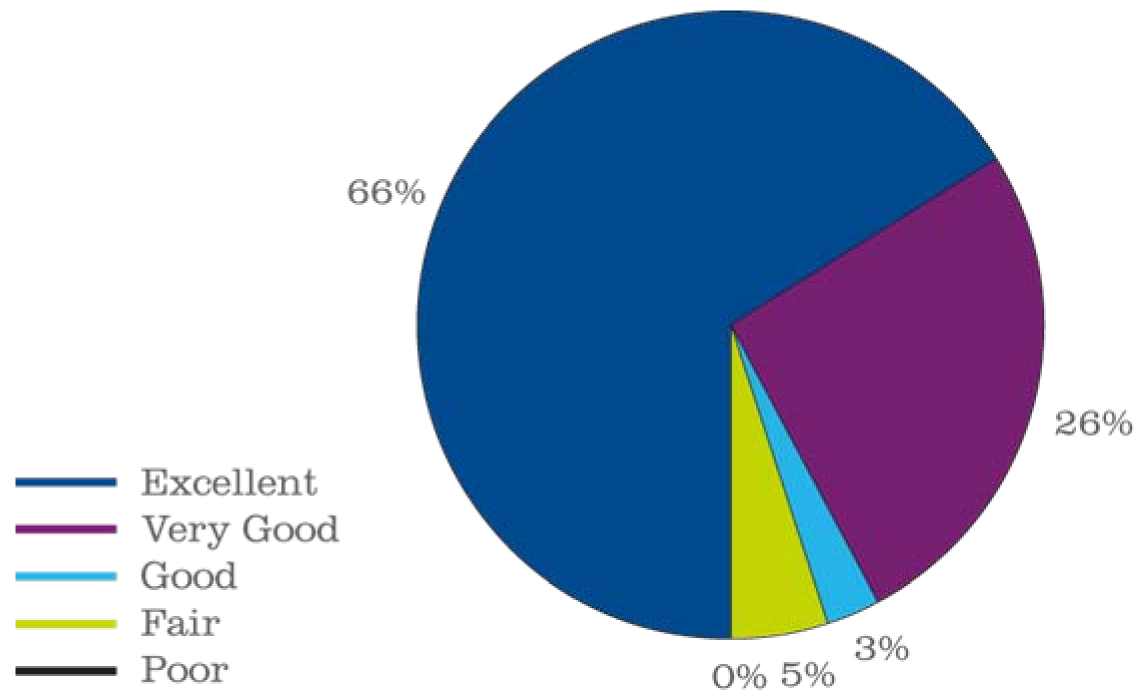
DM Program Results – It's Working



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Example: P4P with DM

- LifeMasters contracts with provider network in South Florida whose mission is solely to introduce DM to physicians
- Supports concept of the Medical Home
- Aim to successfully engage 33 to 50% of the total physicians in Miami Dade County at a minimum rate of 10 providers per week
- Physicians receive per-member per-month fees for each patient engaged in the program and incremental increases the longer the participant remains in the program
- P4P bonuses offered for practices with improved outcomes
  - Physician agrees to respond to the *Health Alerts* and complete satisfaction survey

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Are you ready for P4P?

P4P program growth from 39 to 148 from 2003-2007

Do you know where your patients are?

- How many diabetics reside within your practice?
- Who are they?
- Do you see them regularly
- What % meet A1c guidelines? Which do not?
- What were the results of your entire population?
- What do you need to do to earn a performance bonus?
- Who is getting you integrated data and information?
- Who is helping you reach these patients and the goals?

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How can DM help in a P4P environment?

- Aggregate & report patient data and results
- Help educate and focus patients on needed lifestyle change
- Improve adherence to care, persistence with meds
- Help "de-hassle" your office – less calls, unnecessary visits, interruptions, missed tests etc.
- Increase patient satisfaction
- Decrease patient risk

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Talk to your patients about DM

- "Your employer has provided you an important healthcare benefit – disease management. Let me tell you about it. You may get a call from a nurse – please listen carefully to what he/she has to offer."
- "Your DM nurse will not replace me. She will help you and me between visits by making sure you can better care for yourself. If she sees any problems starting between visits, she'll let me know."
- "Think of your nurse as a personal health coach. Call her if you can't reach me and you have a question that isn't an emergency. Then we can talk about that when I see you next time."
- "Think about the things in your health you'd like to change. Talk to me and get support from you DM nurse about these changes. They are important."

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Disease Management Take Home Messages

- DM is here to help, not hurt
- DM works with the whole care continuum
- DM supports the physician plan of care
- DM nurse/coaches help patients become better self-managers
- DM has information technology to track patient care and outcomes

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Questions

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