



Health Quality Partners' (HQP) Model of Community-based Nurse Care Management

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Health Quality Partners (HQP)

- A not-for-profit 501c3 healthcare quality improvement organization, established in 2001, based in Doylestown, PA
- Mission: Improve the quality and experience of healthcare for patients, their families and healthcare providers
- Currently a 14 Member Team
 - Ken Coburn, MD, MPH, CEO & Medical Director
 - Sherry Marcantonio, MSW, ACSW, Senior Vice President
 - Maryellen Keller, RN, BSN, Director ACM (up to 40% caseload)
 - Nancy Davis, RN, MSN, ANP-C, CDE, Senior Clinical Team Leader (up to 40% Caseload)
 - 7 Nurse Care Managers
 - Data Management, Analytics & Support

Community-Based Nurse Care Management

- Experience of HQP's team in this area spans more than 10 years and 3 organizational contexts
- The Medicare Coordinated Care Demonstration (MCCD) – authorized in 1997 BBA
 - First randomized prospective trial to test whether Care Coordination can lower Medicare costs and improve patient outcomes
 - 15 sites across the country were competitively selected
 - HQP's cohort includes patients with poorly controlled Coronary heart disease, Heart failure, Diabetes, Asthma, Hypertension or Hypercholesterolemia

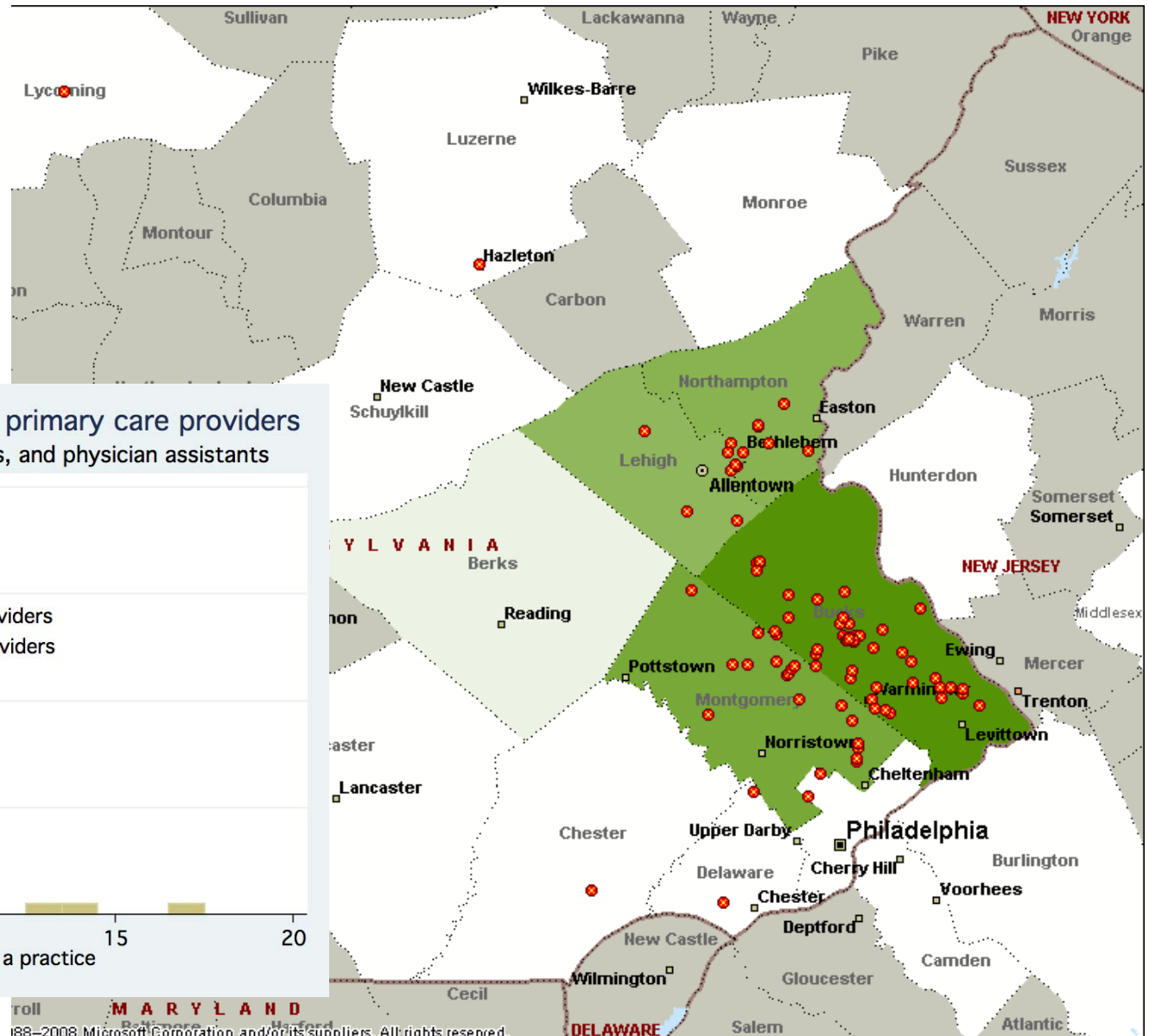
Most HQP participants come from 4 eastern counties of Pennsylvania;

Bucks, Montgomery, Lehigh, and Northhampton... (approx 420-500 sq miles)

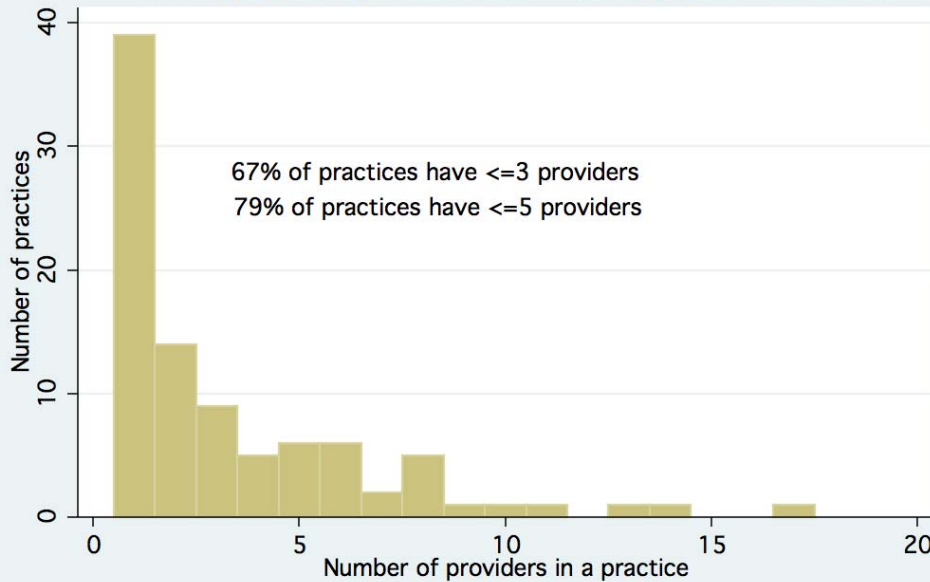
and get medical care from about 90 different primary care practices and 7 hospitals

Services are delivered at:

- Home
- Physician office
- Hospital
- Community centers
- Faith-based org.'s
- HQP's office
- Other



Participating Practice Size: # of primary care providers
Including physicians, nurse practioners, and physician assistants



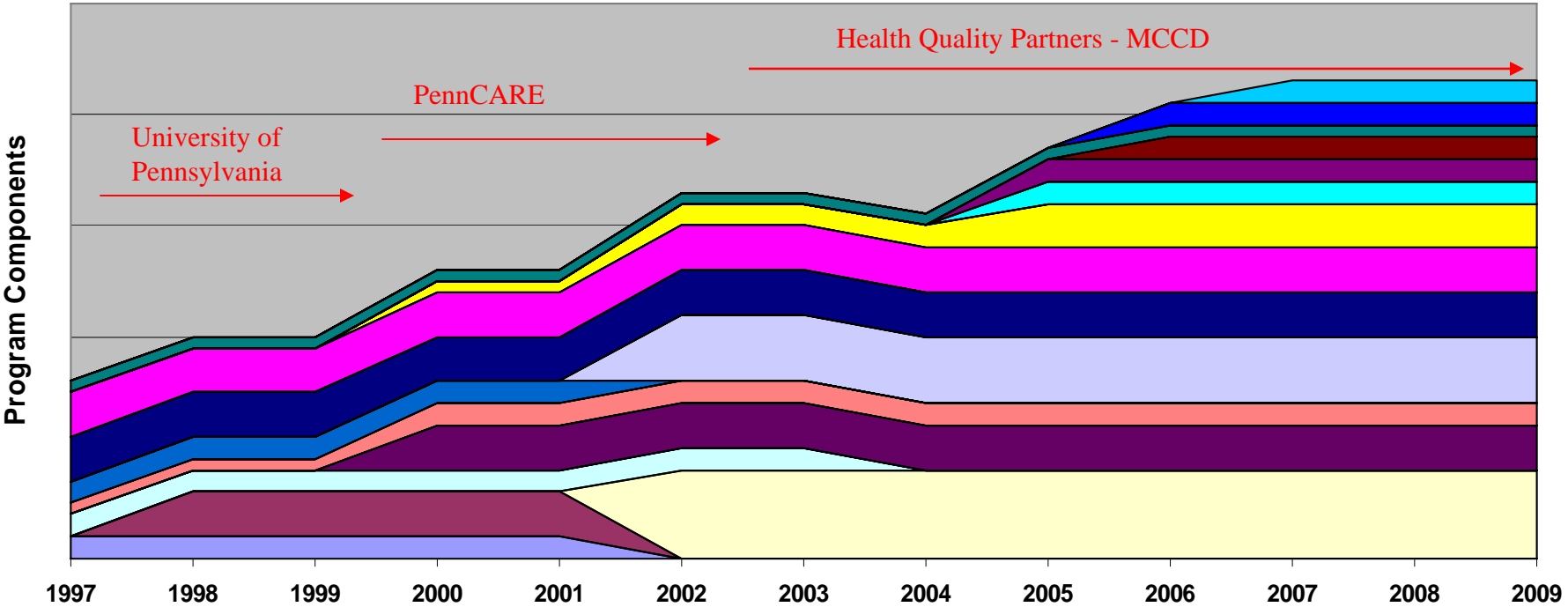
Key characteristics of HQP's model

- **Person-centered**
 - Use preferences of the participant with regard to their health and quality of life goals
 - Extensive initial and ongoing personal risk assessment
- **Systems approach**
 - Prevent or mitigate system errors related to care transitions, medications, miscommunications, discontinuity, etc.
- **Focus on multidimensional determinants of health**
 - Assess, monitor, and address both medical and non-medical determinants of health
 - Prompt disease prevention and screening per established guidelines
 - **Risk modification through behavior change**
 - **Strengthen social, psychological, and family support**

Key characteristics of HQP's model

- **Evidence-based interventions provided directly by nurses**
 - Geriatric assessments and in home interventions
 - Monitor for variance from disease specific guidelines
 - Self management skill building
 - Weight management, weight maintenance and nutrition GROUP
 - Physical activity GROUP
 - Gait and balance training GROUP
- **Collaborate with PCPs on a high information relevance, just-in-time basis**
- **Standardize processes, protocols, staff training and performance monitoring**
- **Data management & analysis – focus on improving outcomes, gain insight and manage effectively**

Health Quality Partners Care Management Evolution



- Disease Specific Care Managers
- Integrated Disease & Geriatric Care Managers
- Patient Referrals through Claims and Practice Data
- Stratification - Diagnosis based
- Comprehensive Assessments
- Group Education
- Lifestyle Physical Activity & Exercise
- Aggregate Data Analysis
- Care Transitions Protocol
- Geriatric Specific Care Managers
- Patient Referrals by Physicians
- Prioritization - Claims and Other Data
- Stratification - Geriatric & Disease Risk Assessment
- 1:1 Education & Self Management
- Structured Weight Loss
- FallProof Balance & Mobility Program
- Data Analysis- cohort, patient, management

Nurse care manager contacts (n=771*)

Contact types	Count	Mean contacts per pt-yr
Group	13,994	4.7
Home visits	6,891	2.3
Office visits	5,636	1.9
Total in-person	26,521	8.9
Telephone	25,552	8.5
Email	42	0.0
Total remote	25,594	8.5

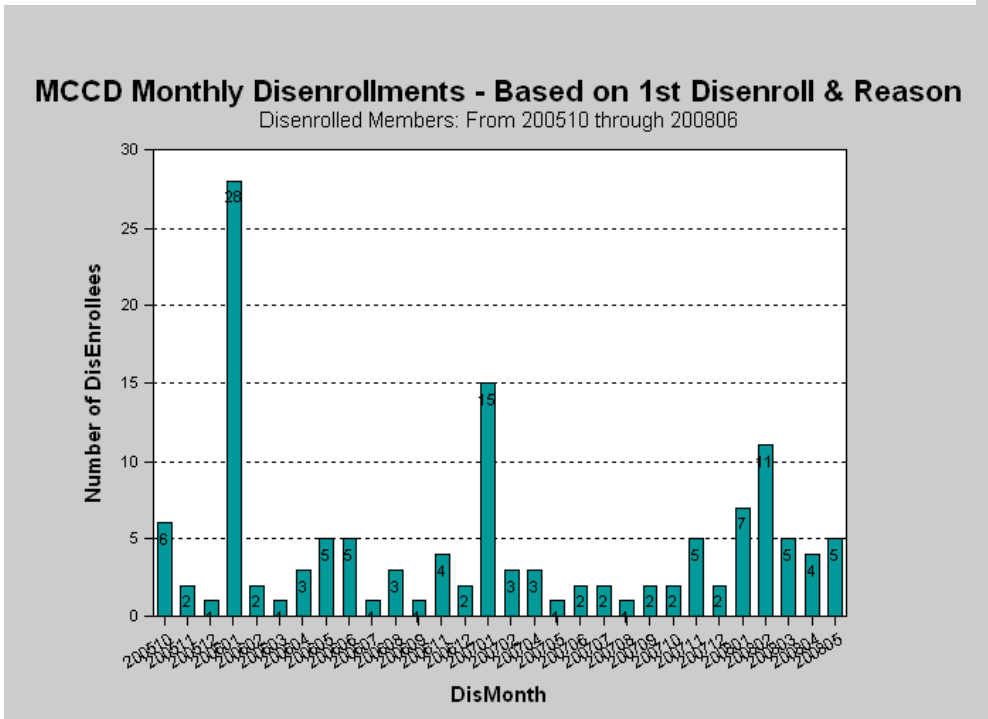
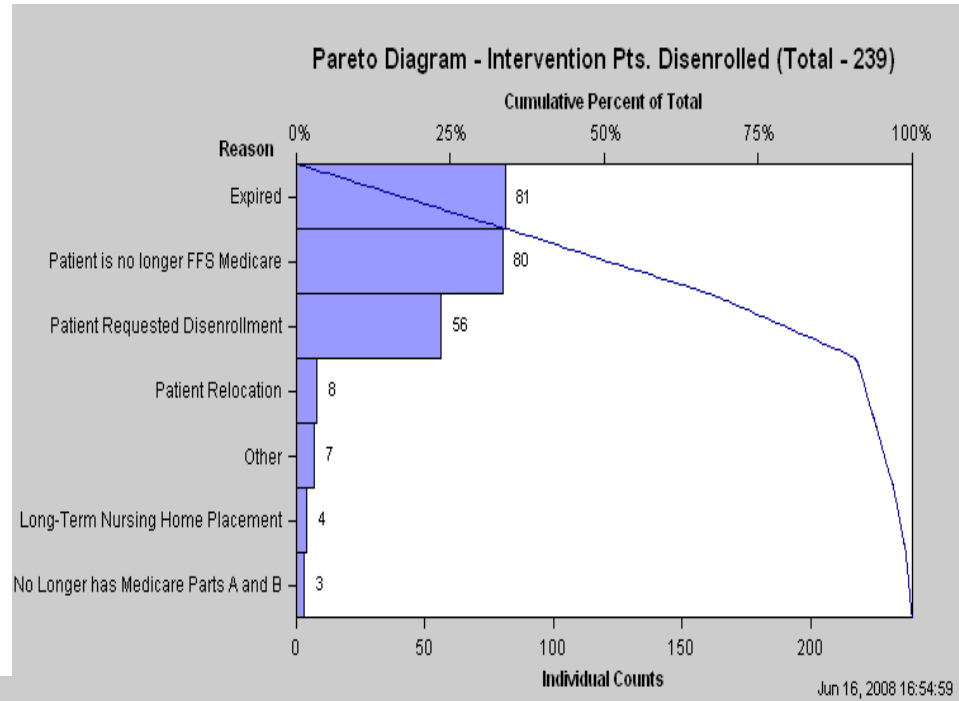
* Participants enrolled thru 03/2006 with follow-up thru 03/2008

Group programs delivered by nurse care managers

Group	Individuals completing (of total n=771)
LEARN wgt mgmt	180
FallProof	93
Weight maintenance	153
Chair exercise	57
Heart healthy workshop	4
CVI nutrition	161
Walking group	11
Unique participants in one or more groups	303 (39%)

Data Collection and Analysis

- **Improve Outcomes** – Optimal outcomes require process reliability
- **Gain Insight** – processes are always less reliable than we believe



Managing with Data

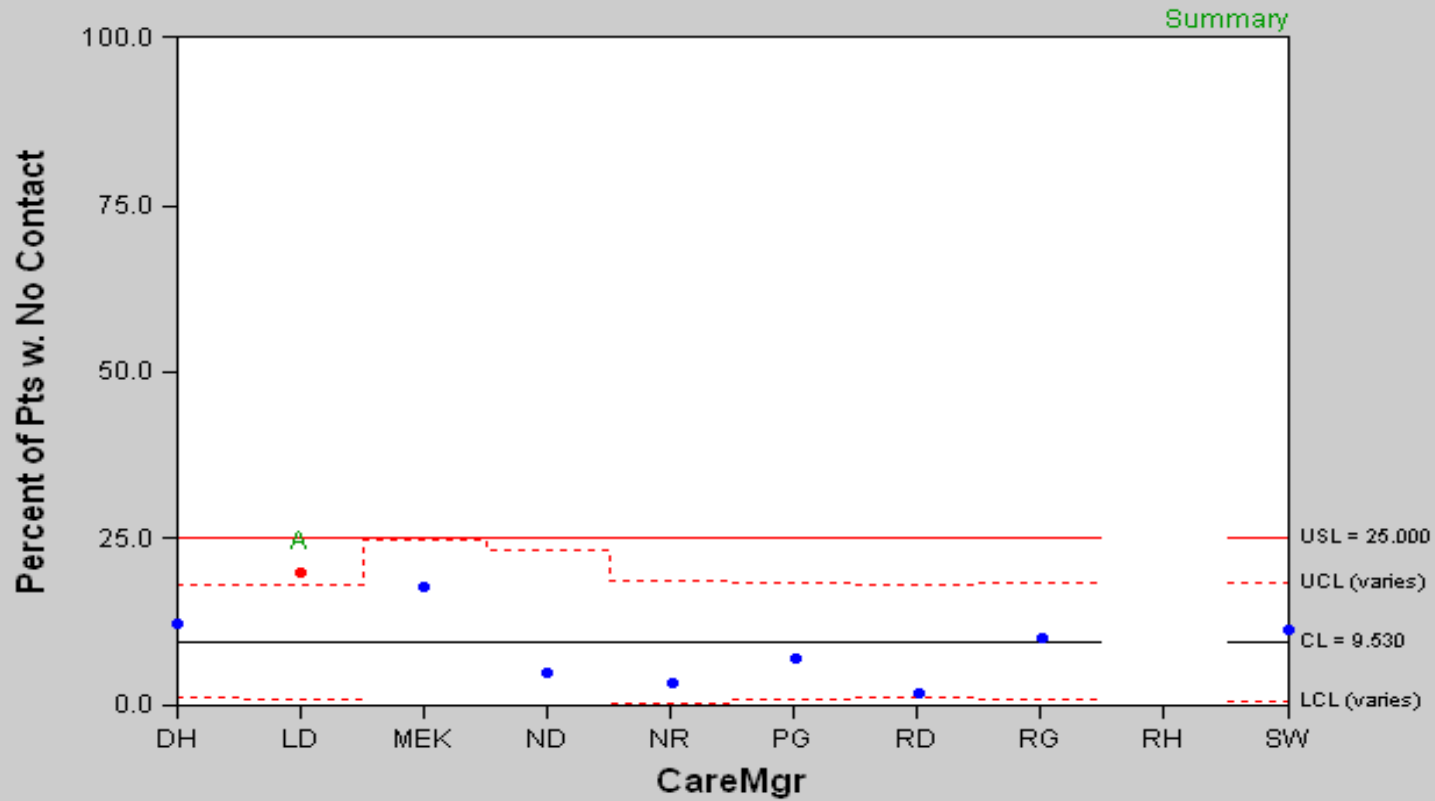
- Transform data into meaningful information
- Empower management and front line staff to manage numerous processes and make improvement
- Tools; dashboards, rosters, etc.

Care Manager / Team Performance

p Chart

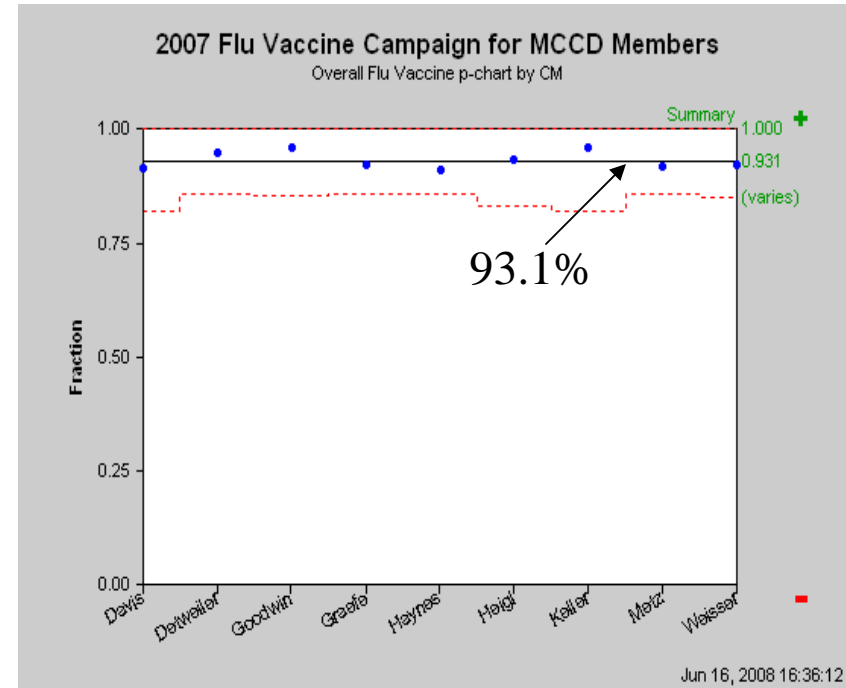
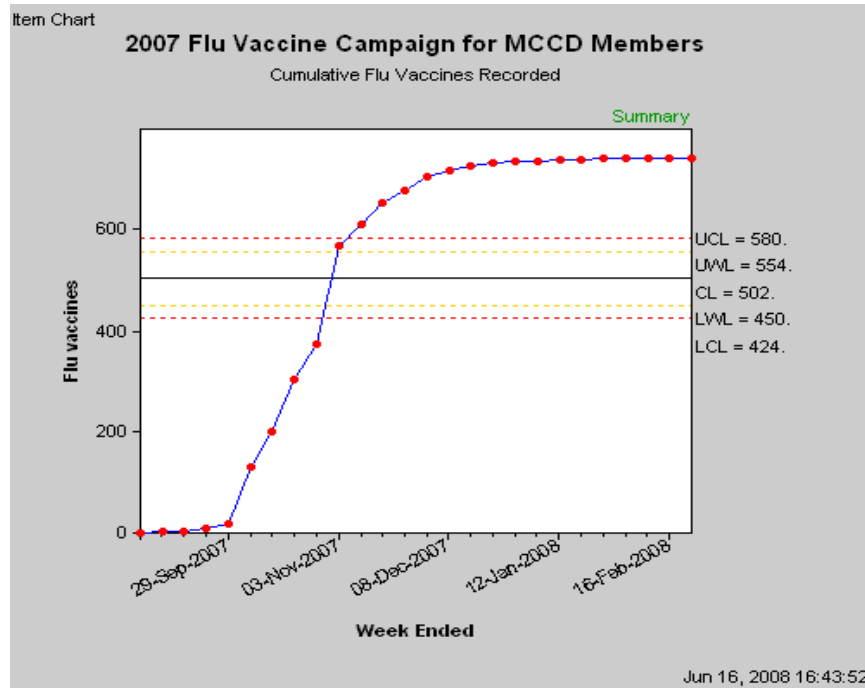
P_chart - Average Monthly No Contact Rate

Date range: 200901 to 200901



CareMgr	DH	LD	MEK	ND	NR	PG	RD	RG	RH	SW
Defects	13	21	6	2	3	7	2	10	?	11
MM	107	106	34	41	91	100	109	101	?	98
% of Pts w. No	12.150	19.811	17.647	4.878	3.297	7.000	1.835	9.901	?	11.224

2007 - 2008 Flu Vaccine Initiative



Row	CM	Caseload	Received	Allergy	Refused	NotAddressed
1	Davis	48	43	1	4	0
2	Detweiler	114	106	2	6	0
3	Goodwin	103	97	2	4	0
4	Graefe	117	104	4	9	0
5	Haynes	113	103	0	8	2
6	Heigl	59	55	0	4	0
7	Keller	47	45	0	2	0
8	Metz	112	101	2	7	2
9	Weisser	92	84	1	6	1

Process of Care Measures Dashboard – HQP Cohort Timeliness of Measure and At Target Goals

Row	measure	OOO_Overdue	OOO	Overdue	Good	no_value	status	DrillDownUrl	ScoreCardUrl
1	Blood Pressure	3%	16%	4%	74%	1%		▼	
2	LDL	9%	5%	16%	66%	2%		▼	
3	HDL	9%	7%	16%	65%	2%		▼	
4	Trig	5%	3%	18%	69%	2%		▼	
5	Waist	21%	10%	34%	24%	8%		▼	
6	HbA1c	19%	6%	25%	47%	0%		▼	

By Nurse Care Manager Caseload – Blood Pressure

Blood Pressure

Row	CM	OOO_and_Overdue	OOO	Overdue	Good	No Value	status	DrillDownUrl
1	Davis	1	3	1	29	0		▼
2	Detweiler	1	25	0	83	0		▼
3	Doncsecz	1	10	4	92	0		▼
4	Goodwin	8	17	4	73	0		▼
5	Graefe	3	20	1	69	3		▼
6	Haynes	3	18	9	80	0		▼
7	Keller	0	7	2	22	0		▼
8	Rice	3	13	7	81	5		▼
9	Weisser	6	21	7	67	0		▼

HQP's Results to date in the Medicare Coordinated Care Demonstration

- Third Report to Congress on the Evaluation of the MCCCD released 6/3/08
 - [the demo] “The most comprehensive and rigorous estimates to date of the effectiveness of care coordination interventions in a Medicare fee-for service setting.”
 - “... only program that clearly reduced expenditures... The only [sustainable] site that was cost neutral” (mean follow-up 29 months)
 - 14% fewer hospitalizations ($p=0.13$) and 14% lower Medicare Part A and B expenditures ($p=0.07$) than the control group
 - “... received consistently higher ratings from their patients than other programs with the highest ranking on the scoring on patient education and patient monitoring”



HQP's Results to date in the Medicare Coordinated Care Demonstration



- JAMA 2009, Peikes et al, Effect of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures Among Medicare Beneficiaries: 15 Randomized Trials
 - 1 of only 3 programs in which monthly Medicare expenditures were less in the intervention than the control group (-\$84, 90%CI -\$171 to \$4, $p=0.12$)
 - HQP's fees were largely offset by this savings
 - Among HQP's high-risk group*, -29% change in hospitalizations ($p=0.009$) and -20% in expenditures ($p=0.07$)

**HQP intentionally enrolled participants at low, moderate, and high risk in order to learn which individuals benefit most from the model.*

In the year prior to randomization, the mean per person monthly Medicare expenditure and per person yearly hospitalizations was \$467 and 0.32 for all randomized HQP participants versus \$552 and 0.3, respectively for all Medicare beneficiaries nationwide in 2003.

Examples of Additional Results to Date

- Balance & Mobility
 - Falls are a common and serious problem facing older adults, resulting in injury, hospitalizations, loss of independence, nursing home placement and death.
 - HQP Balance & Mobility Program (FallProof) participants (n = 96) have had a 22% relative improvement in functional lower body strength ($p < 0.0001$) and 15% and 21% relative improvements in Berg and Fullerton scores respectively ($p < 0.0001$)



Group programs: Seated Exercise, Balance & Mobility

Examples of Additional Results to Date

- Mortality on an intention to treat basis
 - Reduced in the intervention group
- Cardiovascular risk factors (Source: HQP clinical chart review data)
 - Greater reductions among intervention than control group for several measures



One-on-one individual sessions for high risk patients

HQP's model close to 'Community-based health care extension service'

Capabilities per AHRQ (1)	HQP
Provide PCPs services of care managers, social workers, health educators, others	Yes
Serve as connectors linking local PCPs to community resources	Yes
Provide PCPs with quality improvement technical assistance	Yes with hospitals; Now exploring with practices
Partner with academic medical ctrs and PC practice-based research network	Yes; CMS demo with practices, UPenn Nursing Research

(1) Meyers D, Clancy C, Editorial Primary Care: Too Important to Fail, Annals of Internal Medicine 17 Feb 2009.

For more information and/or interest in collaborating

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