advanced preventive care

a system design for population health

Ken Coburn, MD, MPH
CEO and Medical Director
Health Quality Partners

overview

HQP’s story

design principles

operational domains

system design from experience

HQP’s story

orientation to HQP

Health Quality Partners (HQP, hqp.org)

design, test, and disseminate models of care that improve the health of vulnerable populations

29-member team based in Doylestown, PA

incorporated in 2000, non-profit 501(c)3

our work and supporters

Traditional Medicare – Medicare Coordinated Care Demonstration

Medicare Advantage – higher-risk members of Aetna plans

Bundled Payment (BPCI) - St. Mary Medical Center

State Innovation Model planning – lead consultant for Maryland (2013)

Research with NewCourtland Center for Transitions and Health

Design Innovation - Camden Coalition of Healthcare Providers (CCHP)

Additional support generously provided by Doylestown Hospital

CMS - Medicare Coordinated Care Demo

11 years, 11 months, 19 days

3,000+ chronically ill older adults enrolled

community-based nursing designed to provide advanced preventive care

randomized, controlled research trial

outcomes

25% fewer deaths ($p<0.05$)

people (participants, families, docs) like it

no known adverse events or side effects

Coburn et al, PLoS Medicine, July 2012

Fourth Report to Congress, Mathematica Policy Research, Inc., March, 2011

for those at 'higher-risk’;

39% fewer hospital admissions

37% fewer ER visits

28% lower net health care cost ($397 PPPM)

(all $p \leq 0.05$)

Fourth Report to Congress, Mathematica Policy Research, Inc., March, 2011

publications

JAMA®

Online article and related content current as of February 10, 2009.

Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures Among Medicare Beneficiaries: 15 Randomized Trials

Deborah Peikes; Arnold Chen; Jennifer Schore; et al.

JAMA. 2009;301(6):603-618 (doi:10.1001/jama.2009.126)

http://jama.ama-assn.org/cgi/content/full/301/6/603

"… HQP, also showed promise, … for this subgroup [highest severity cases] both differences were large (-29% for hospitalizations and -20% for expenditures) and statistically significant (P=.009 and P=.07, respectively)."

HEALTH AFFAIRS JUNE 2012 31:6

AVOIDABLE ADMISSIONS

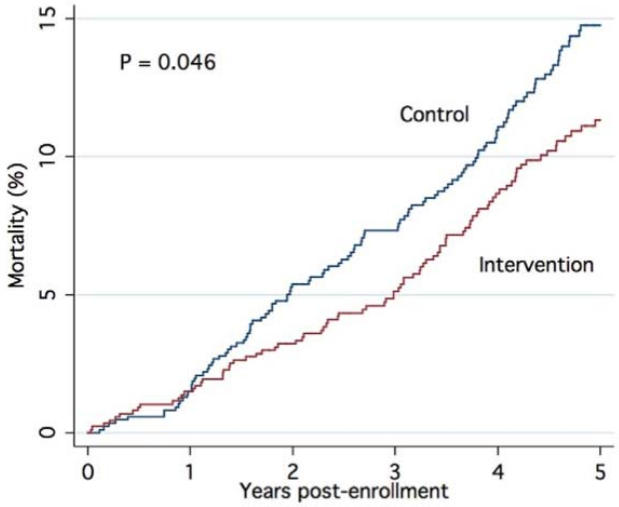
DOI: 10.1377/hlthaff.2012.0393
HEALTH AFFAIRS 31,
NO. 6 (2012): 1156–1166

By Randall S. Brown, Deborah Peikes, Greg Peterson, Jennifer Schore, and Carol M. Razafindrakoto

Six Features Of Medicare Coordinated Care Demonstration Programs That Cut Hospital Admissions Of High-Risk Patients

"… Health Quality Partners, reduced hospitalizations by 30 per 100 beneficiaries (33 percent; *p*=0.02)"

" … The demonstration program with the largest effects, at Health Quality Partners, was very data-driven, tracking care coordinators' performance and continually assessing the effectiveness of newly introduced interventions component and refinements to existing ones …"



OPEN ACCESS Freely available online PLoS MEDICINE

Effect of a Community-Based Nursing Intervention on Mortality in Chronically Ill Older Adults: A Randomized Controlled Trial

Kenneth D. Coburn*, Sherry Marcantonio, Robert Lazansky, Maryellen Keller, Nancy Davis

Health Quality Partners, Doylestown, Pennsylvania, United States of America

"… Overall, a 25% lower relative risk of death (hazard ratio [HR] 0.75 … the adjusted HR was 0.73 (95% CI 0.55-0.98, *p*=0.033)."

preventing the ‘unpreventable’ among a high-risk Medicare population

HQP’s results from:
Fourth Report to Congress on the Medicare Coordinated Care Demonstration

no statistically significant impact on “preventable hospitalizations”, but a highly significant reductions in overall hospitalizations;

Annualized Number of Hospitalizations

Control Group Mean	Treatment-Control Difference	% Differ-ence	p-value
0.894	-0.347	-38.8	<0.01

Aetna - Medicare Advantage

completing year 4

1,600 chronically ill older adults

difference-in-differences evaluation done by

Aetna's medical economics division

aetna℠ News Hub

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Aetna, Health Quality Partners See Fewer Admissions, Lower Costs from Care Management Program

hospitalizations reduced 17-20%

costs reduced 16-18%

gain share bonus to HQP 3 consecutive years

The Washington Post

SUNDAY, APRIL 28, 2013

The nurse's house call:

If this were a pill, you'd do anything to get it

AMANDA VOISARD FOR THE WASHINGTON POST

DELIVERING CARE: **Patty Graefe, a nurse with Health Quality Partners, makes her weekly visit to Paul and Betty Bradfield at their home near Doylestown, Pa.**

success factors / design principles

person-centered	(person)
population-relevant	(population)
reliable	(program / system)

Key operational domains: *policies & protocols, staff training, participant education, data management, advanced analytics, and management practices*

actualizing design principles through key operational domains

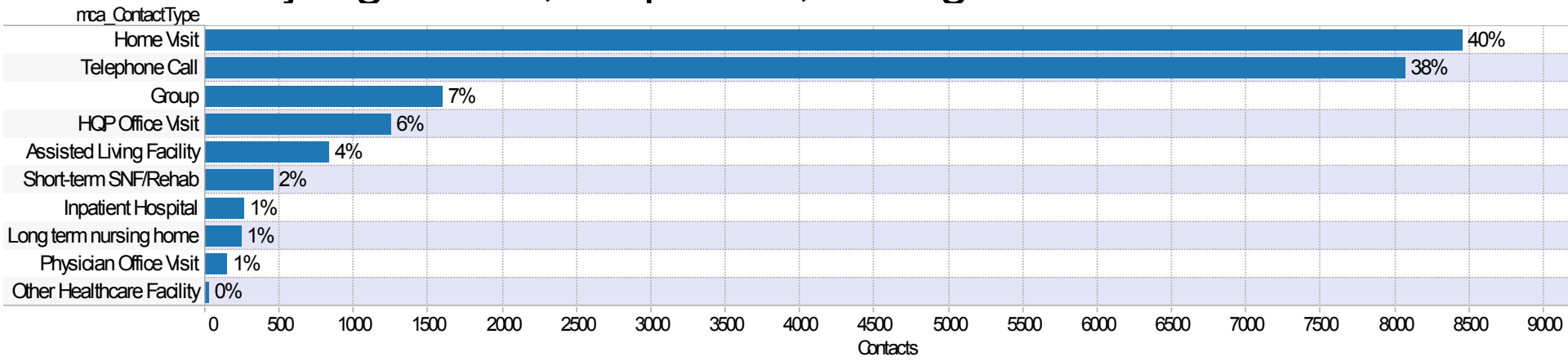
person-centered

longitudinal, continuous, proactive, dynamic

frequent contacts; avg 29/year, most (60%) are in-person

location and delivery as preferred by participant

non-judgmental, respectful, caring



Key operational domains: *policies & protocols, staff training, participant education, data management, advanced analytics, and management practices*

go when and where needed

listen without judging

population-relevant

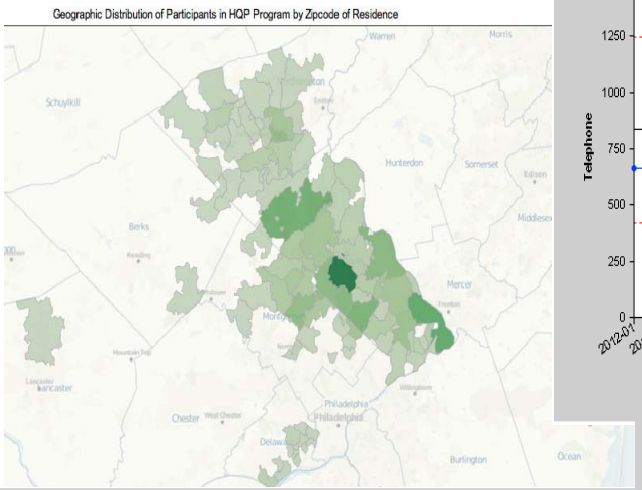
a robust portfolio of 30-35 interventions selected based on their ability to mitigate health risks prevalent in the target population – *taking a broad view of health risks and determinants*

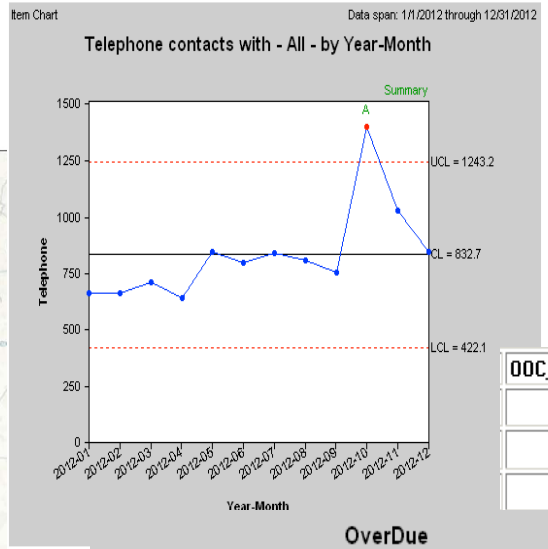
best-in-class: assessments, monitoring, self-management, medication management, lifestyle behaviors, weight management, seated chair exercise, primary care and specialist collaboration, harnessing community resources, advanced care planning, …, etc.

Key operational domains: *policies & protocols, staff training, participant education, data management, advanced analytics, and management practices*

use everything that can help

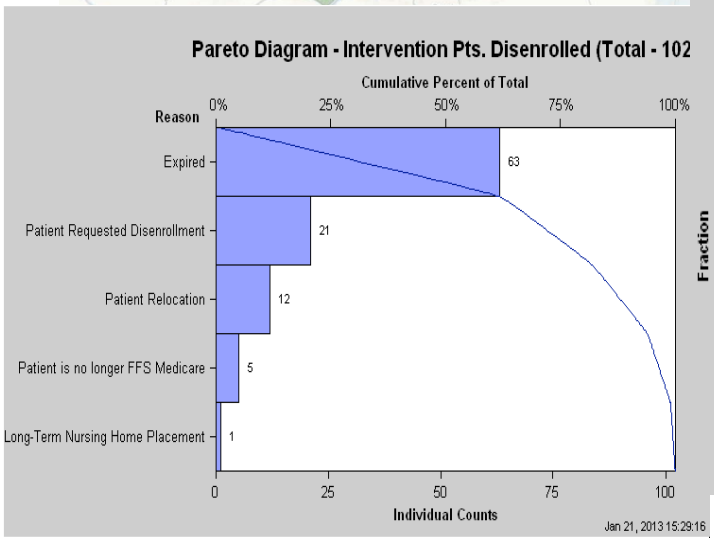
reliability requires new data, analytics, reports, and dashboards ***focusing on service delivery***

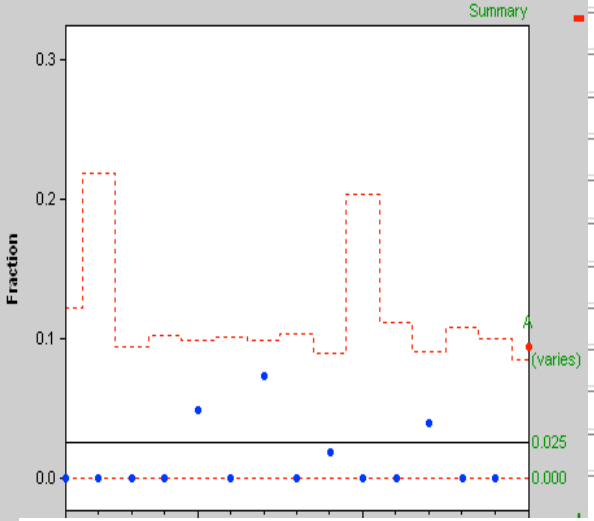




SBP_Value	LDL_Value	HDL_Value	TG_Value	A1C_Value	Waist_C	AST	CAD	COPD	DM	HF	HTN	LPD
140	102	56	272	7.1	41		X		X			
134	175	50	141	9.1	47.5		X		X		X	X
111	101	125	151	5.5	41				X			
152	118	70	99	8	41				X		X	X
143	80	38	94	NA	40.5		X				X	X
140	131	48	98	NA	46		X	X			X	X
142	77	37	101	8.8	45		X		X		X	X
110	115	84	58	5.9	31				X	X	X	X
122	54	62	70	7.2	49		X		X	X	X	X
118	54	36	124	NA	37		X					

OOC_Overdue	OOC	Overdue	Good	status	Roster
41%	16%	16%	25%		
?	?	?	?		
31%	22%	18%	27%		
		10%	31%		
		19%	19%		
		15%	17%		
		9%	24%		
		13%	32%		
		12%	20%		
		5%	42%		
		?	?		
		10%	30%		
		15%	23%		
		15%	30%		
		2%	37%		
		30%	12%		





SE Pennsylvania; HQP participants by zip code of residence

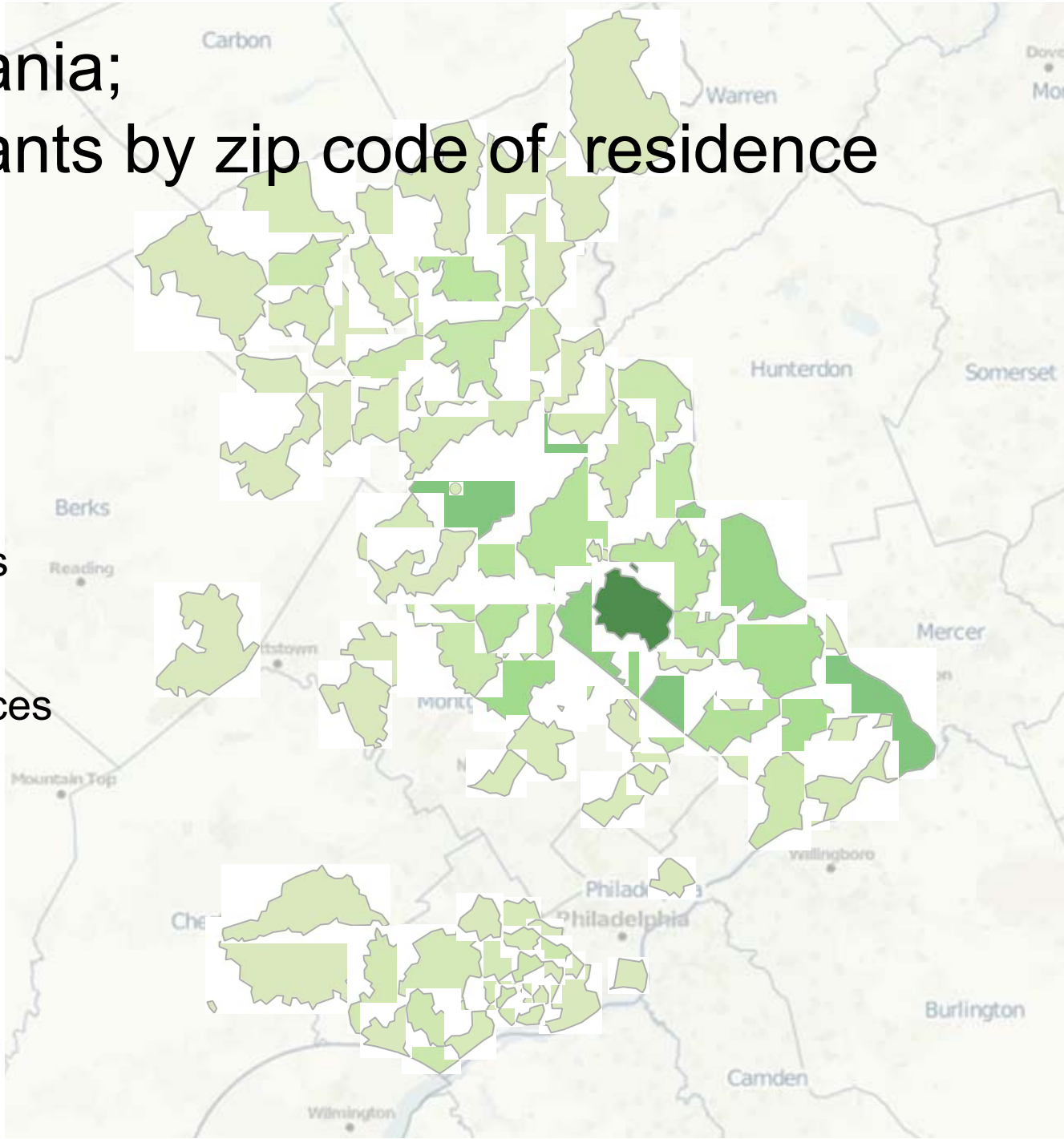
scalable

856 active participants

6+ counties

100+ physician practices

7+ health systems



Maryland estimate ≈ 490 nurses

HQP's experience is worth building on and utilizing with(in) other initiatives

evidence of population health impact still accruing for;

1. patient centered medical homes (Friedberg et al, JAMA 2014; Jackson et al, Annals Int Med 2013; Boult et al, Arch Int Med 2011, etc)
2. ACO's, MSSP's, BPCI, …

HQP's design framework has *promising attributes;*

-- rigorously evaluated (RCT) with + outcomes

-- adaptable to populations, settings, and delivery systems

-- scalable with fidelity and the aid of new tools (PaaS)

SPERO™

A care system and platform designed by HQP to transform the health of vulnerable populations

sperohealth.org

facilitating implementation of advanced preventive care

testing Qtr2 2014, available on a select basis Q3/4 2014

myth busters

most hospitalizations among higher-cost Medicare beneficiaries are not preventable – BUSTED

Shorter/cheaper interventions always achieve a better ROI than longer/more costly interventions – BUSTED

case management, care coordination, etc. are basically all the same – BUSTED

it's impossible to scale a high-touch care program even if it is effective and has a positive ROI – *waiting to be busted*

a plea (and checklist) for leaders

courage

disciplined design

person-centered, population-relevant, reliable

constancy to purpose

hopefulness, possibility, and joy

thank you

Ken Coburn, MD, MPH

if your organization is interested in replicating or scaling HQP's advanced preventive care model or just busting myths

- email me at coburn@hqp.org