advanced preventive care

a system designed for population health

Ken Coburn, MD, MPH
CEO and medical director
Health Quality Partners

overview

HQP’s story

design principles

operational domains

a system designed from experience

HQP’s story

quick orientation to HQP

Health Quality Partners (HQP, hqp.org)

an organization dedicated to health care quality R&D

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

traditional Medicare – CMS Medicare Coord Care Demo

Medicare Advantage – Aetna

Bundled Payment for Care Improvement - St Mary Med Ctr

Camden Coalition of Healthcare Providers collaboration

Maryland's State Innovation Model planning grant (2013)

improving systems initiative - 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

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

DOI: 10.1377/hlthaff.2012.0393
HEALTH AFFAIRS 31,
NO. 6 (2012): 1156–1166
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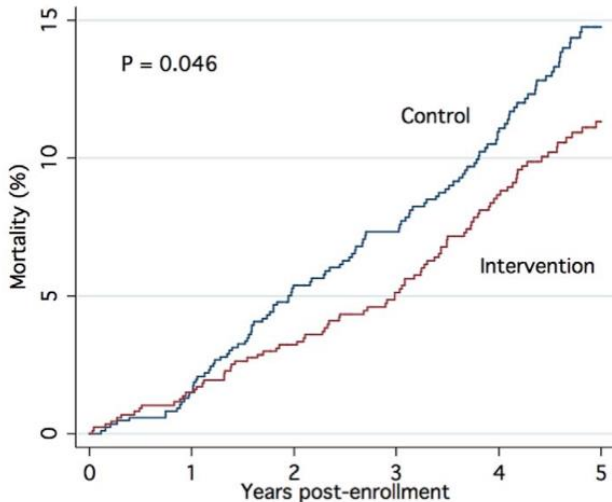
The People-to-People Health Foundation, Inc.

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

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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

BUSINESS

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

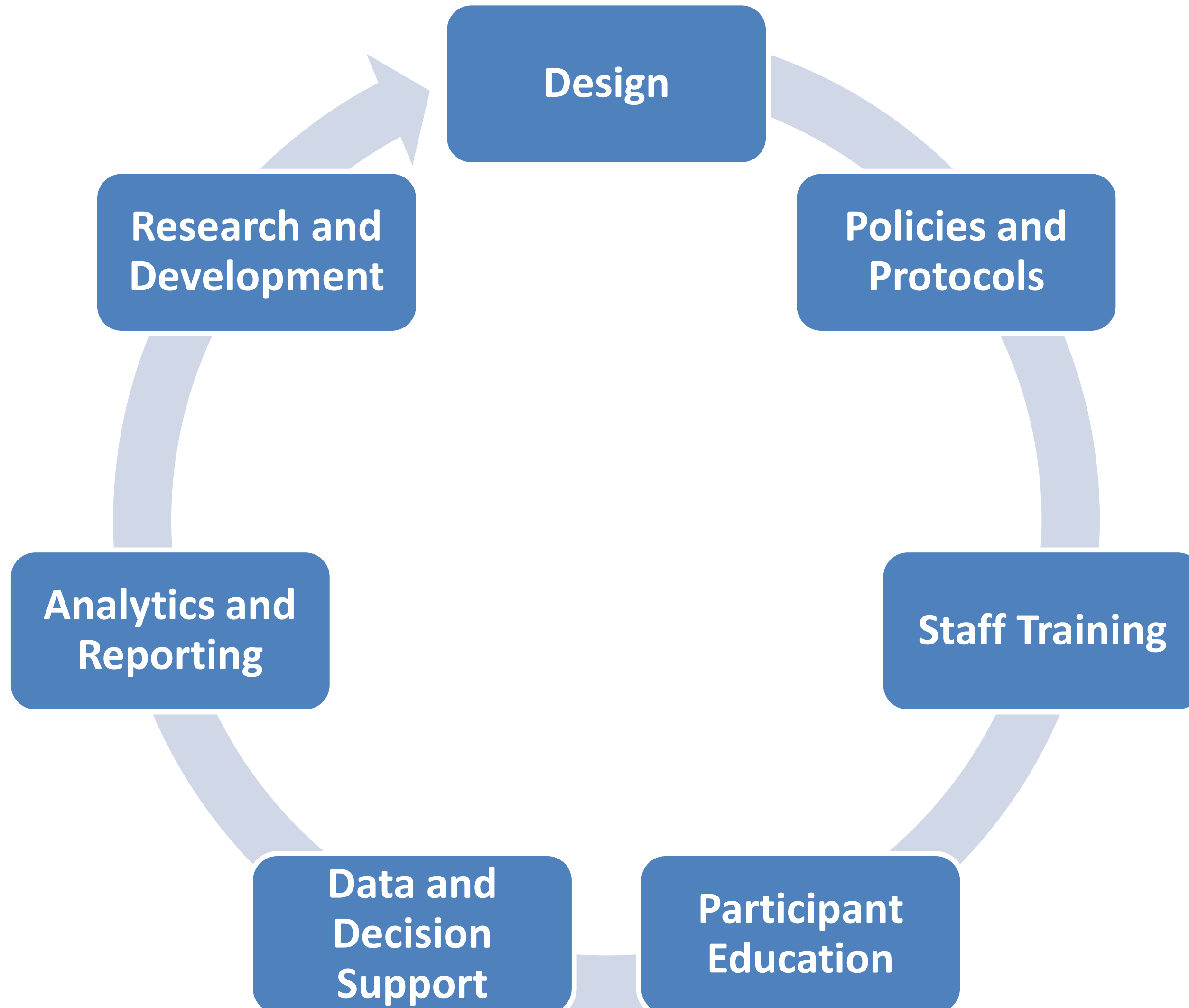
person-centered

population-relevant

reliable

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

actualizing design principles through key operational domains



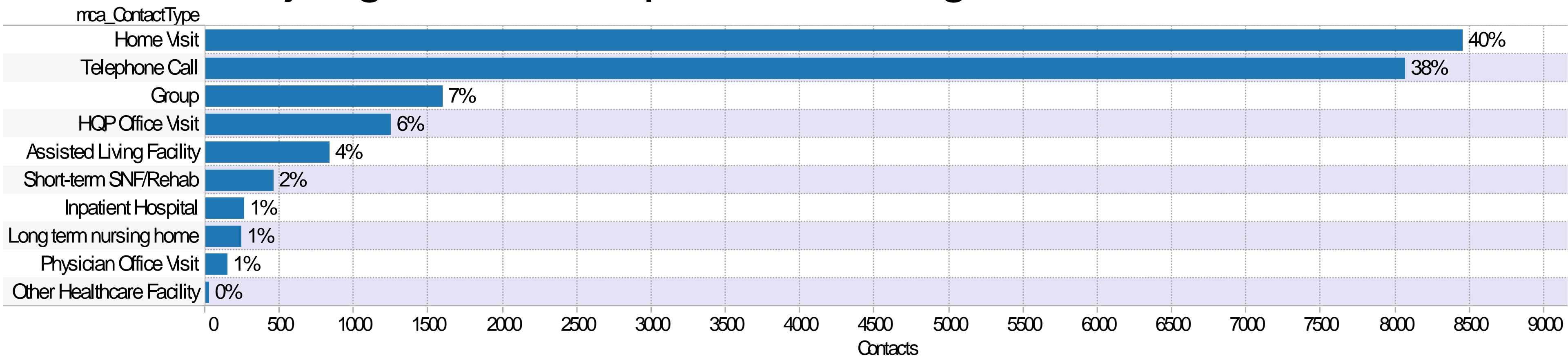
person-centered

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

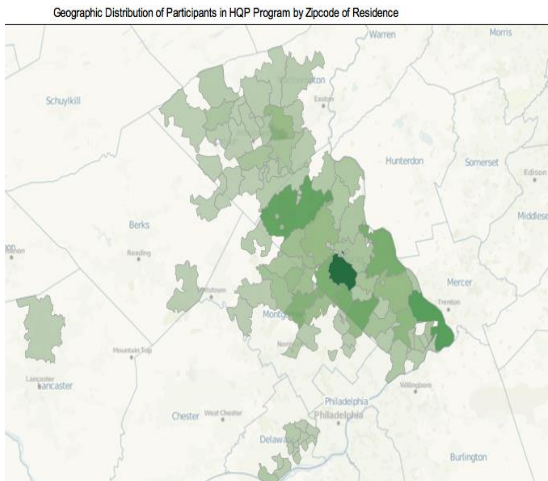
A robust portfolio of 30-35 interventions selected based on their ability to mitigate risks to health prevalent in the target population – taking a broad view of health determinants

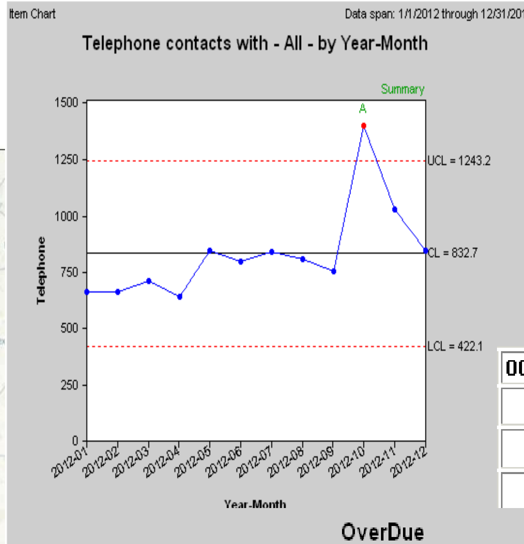
best-in-class: assessments, monitoring, self-management, medication management, lifestyle behaviors, weight management, seated chair exercise, primary care and specialist collaboration, harnessing community resources, advanced care planning, etc., etc.

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

use everything that can help

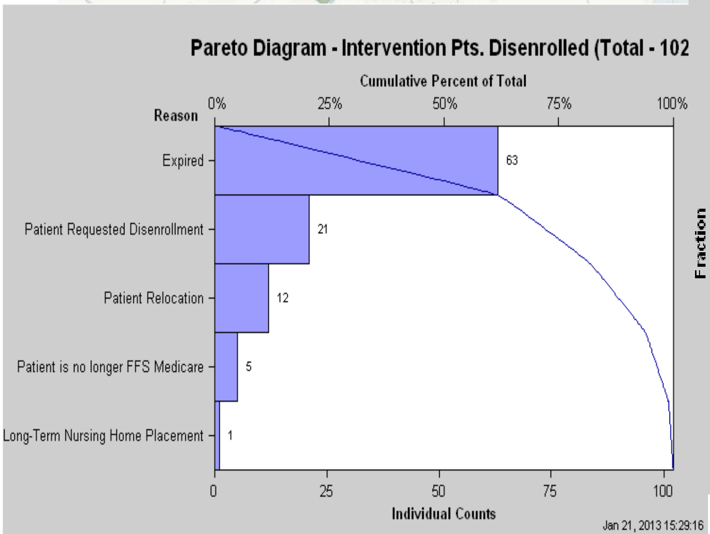
reliability requires new data, analytics, reports, and dashboards ***focusing on service delivery***

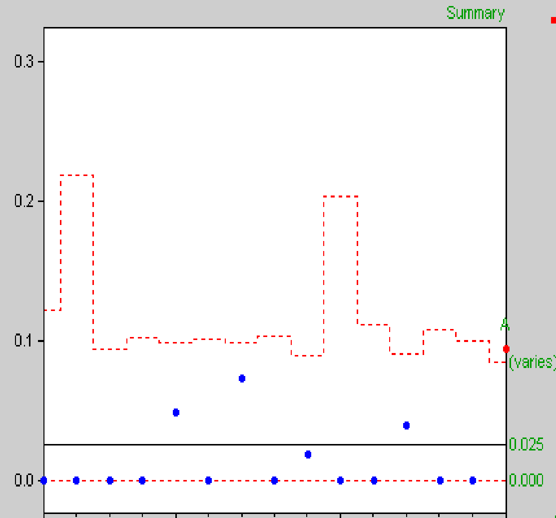




SBP_Value	LDL_Value	HDL_Value	TG_Value	A1C_Value	Waist_C	AST	CAD	COPD	DM	HF	HTN	LPD
140	102	63	274	7.1	41		X		X			
134	175	50	141	9.1	47.5		X		X		X	X
111	101	125	151	5.5	41				X			
152	116	70	99	6	41				X		X	X
143	80	38	94	NA	40.5		X				X	X
140	131	48	98	NA	46		X	X			X	X
142	77	37	101	6.8	45		X		X		X	X
110	117	84	58	5.9	31				X	X	X	X
122	54	62	70	7.2	49		X		X	X	X	X
118	54	33	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

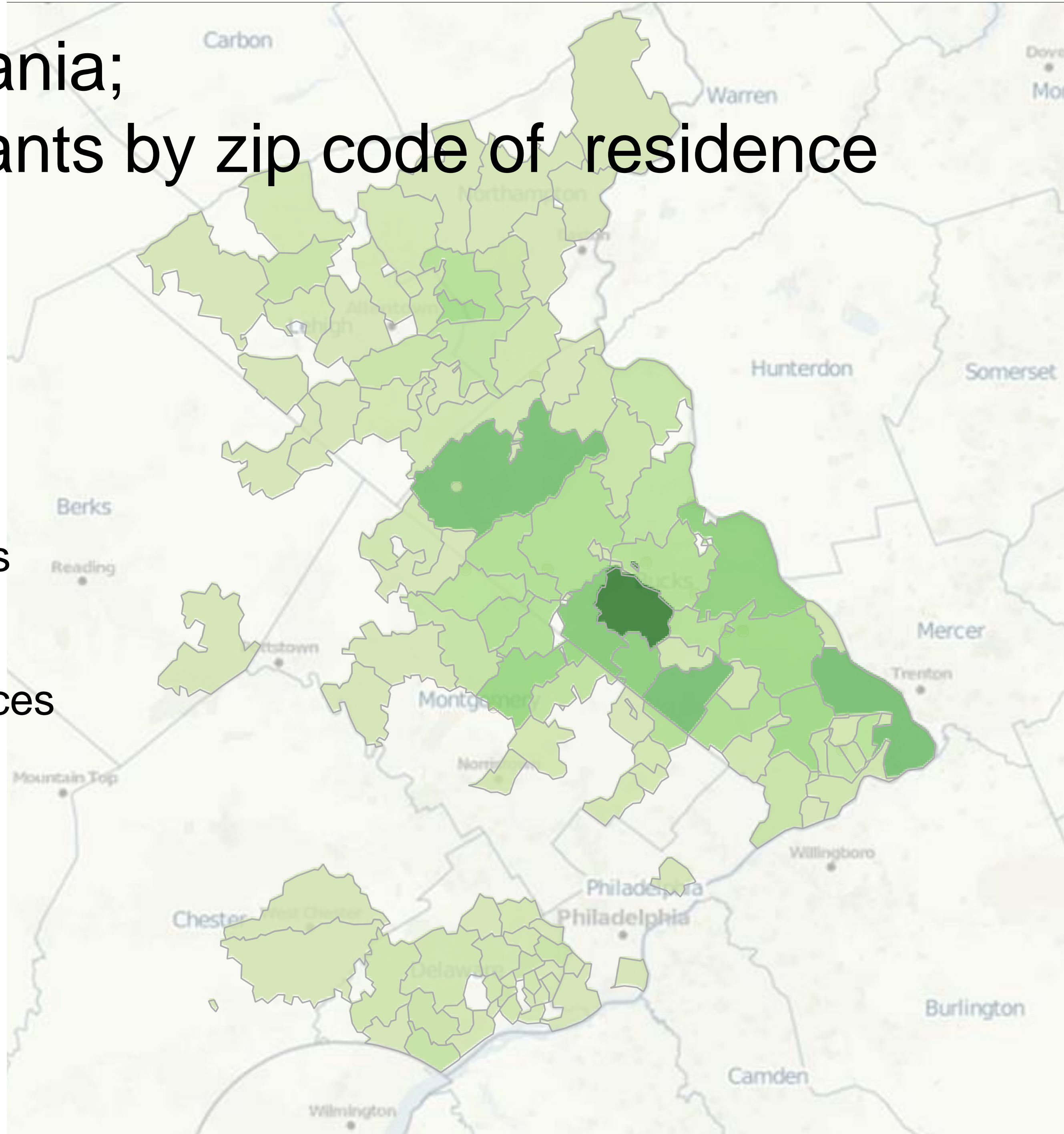
scalable

829 active participants

6+ counties

100+ physician practices

7+ health systems



Maryland estimate ≈ 490 nurses

HQP’s strong evidence worth building on

patient centered medical homes – so far, modest impact in rigorous evaluations (Friedberg et al, JAMA 2014; Jackson et al, Annals Int Med 2013; Boult et al, Arch Int Med 2011, etc)

ACO’s experience is early and mixed; effective interventions used by ACO’s are critical to success

HQP’s design framework offers *promising possibilities*
-- adapt for other vulnerable populations, care settings, and delivery systems

-- scale, through reliable replication

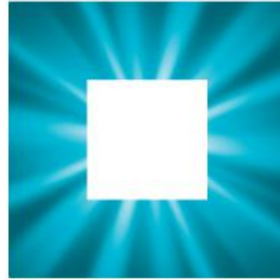
HQP’s next steps

seeking partners wishing to replicate / scale the model

CMS/CMMI Medicare Coordinated Care Demo - TBD

regional SE PA expansion in Aetna Medicare Advantage

adapt to create advanced preventive care for Medicaid



SPERO™

PaaS designed by HQP supporting all operational domains;

policies & procedures, staff training, participant education, data management and decision support, advanced analytics

testing Qtr2 2014, available for use Q3/4 2014

Thank you

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