

Rationale for the Comprehensive Care, Community and Culture Program (C4P)

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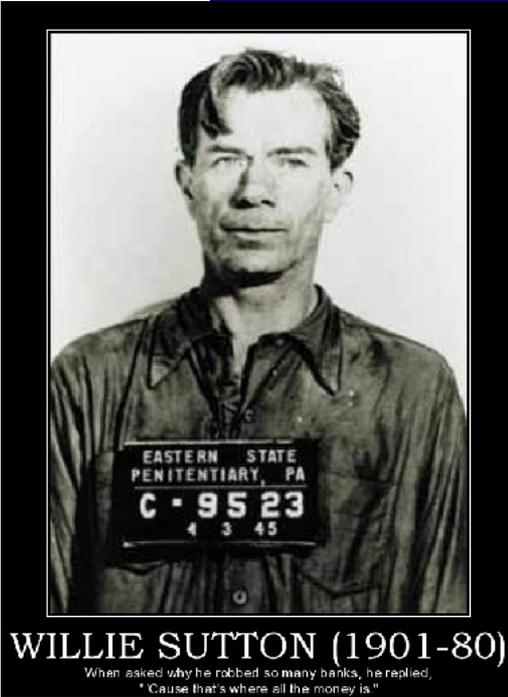
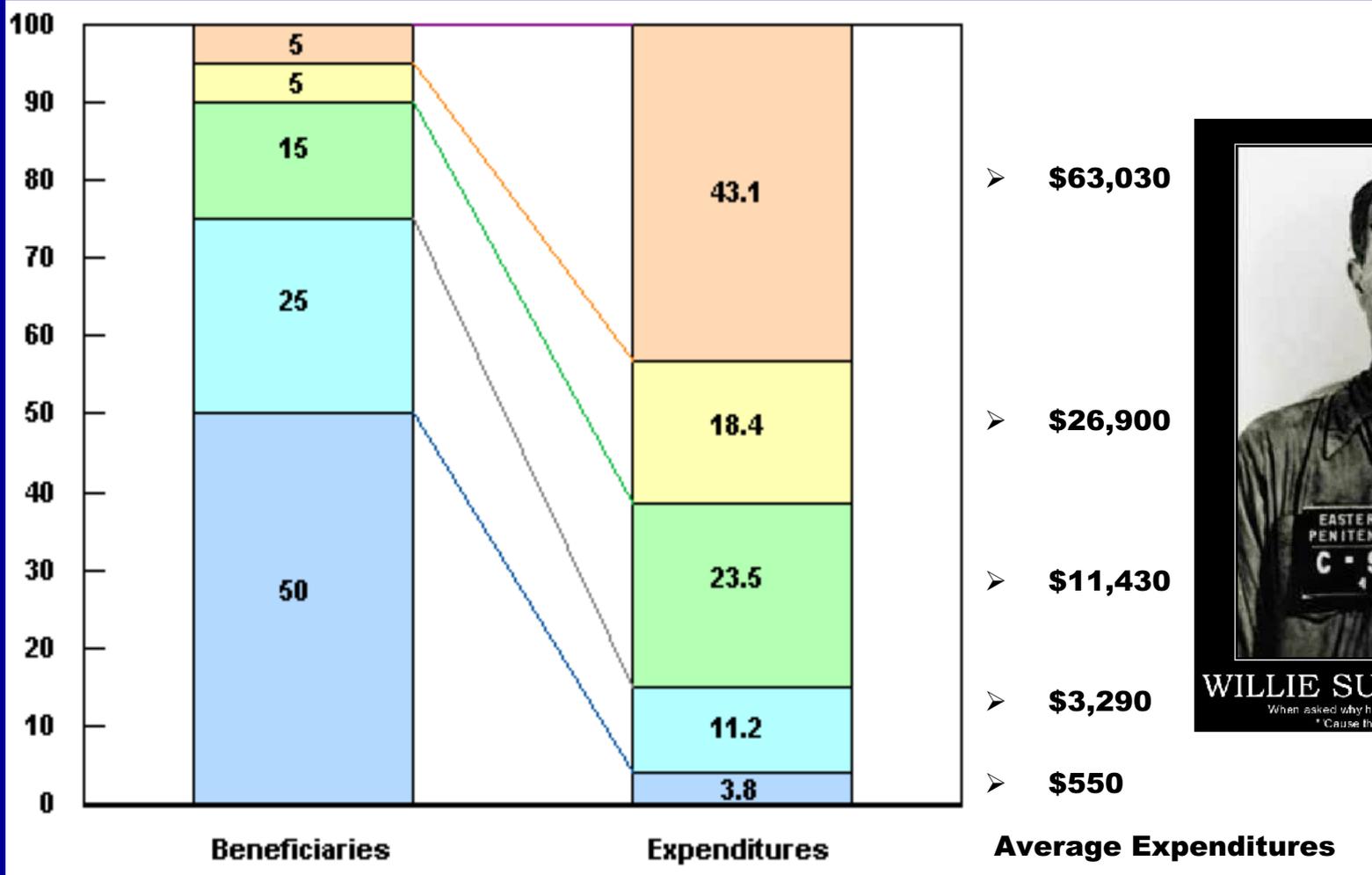
Access and Cost in US Health Care

- Over the past half century, substantial progress in improving access to health care and reducing health disparities
 - Yet disparities remain
- Cost has emerged as an increasing barrier to improved access and to addressing other individual/social needs
 - More spending on health care alone unlikely best approach
 - Health determined by diverse social, economic, behavioral factors
- Improved health and lower costs requires a cross-sectoral approach – Culture of Health

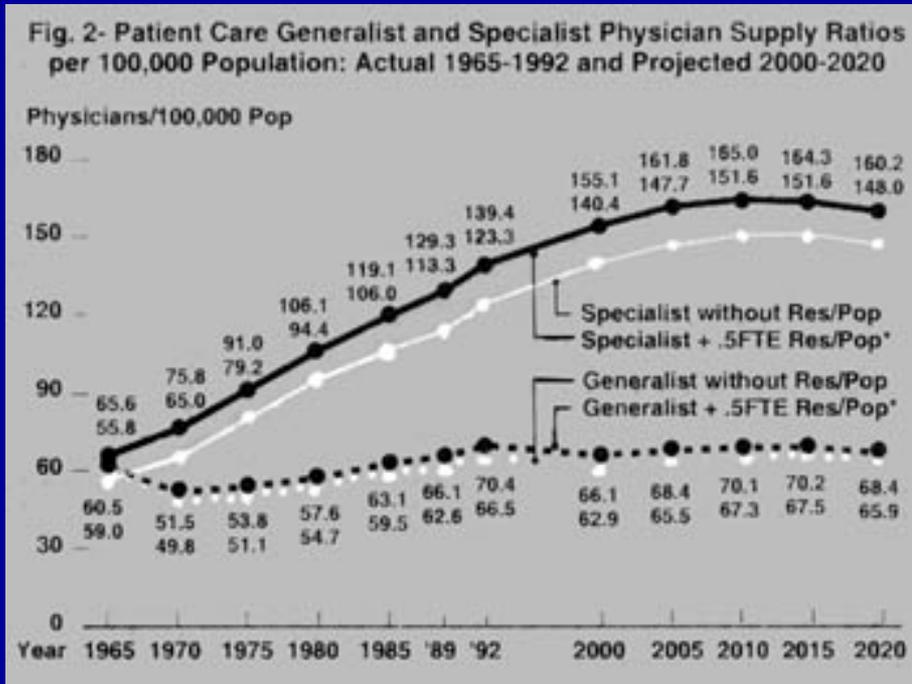
Comprehensive Care, Community and Culture Program (C4P)

- Builds on an patient centered innovation in health care delivery to address diverse medical and social needs of most complex patients
 - Foundational innovation
 - Comprehensive Care Physician Program (CCP)
 - Limitations of CCP
 - Approach in C4P

Distribution of Medicare Spending



Medical Specialization in the US



8th Report of the Council on Graduate Medical Education, 2001

Table 1.—Comparison of Patient Mix and Unadjusted and Adjusted Utilization Rates for Six Indicators Among the Four Specialties*

	Family Physicians	General Internists	Endocrinologists	Cardiologists	P
Patient Mix Indicators					
Mean age, y	40.0	46.9	44.2	55.5	<.0001
Educational level, y	13.6	13.5	14.0	13.1	<.01
No. of chronic diseases per patient	0.70	1.02	1.05	1.32	<.0001
General health perception (0-100 scale)	72.8	67.0	67.9	63.0	<.0001
Unadjusted Utilization Rates					
% Hospitalized	4.30	5.43 (126)†	8.18 (190)†	15.64 (364)†	<.001
Office visits per patient per y	4.53	4.37 (96)	5.57 (123)†	5.19 (115)†	<.001
Prescription drugs per patient	1.18	1.47 (125)†	1.67 (142)†	2.30 (195)†	<.001
% Patients having tests per visit‡	38.8	43.7 (113)†	62.7 (162)†	47.2 (122)†	<.001
Mean value of tests per visit‡	22.00	26.90 (122)†	22.70 (103)	33.80 (154)†	<.001
Mean value of tests per patient per y‡	85.30	109.80 (129)†	112.00 (131)†	158.00 (185)†	<.001
Adjusted Utilization Rates					
% Hospitalized	4.77	5.59 (117)	7.15 (150)†	10.55 (221)§	≤.001
Office visits per patient per y	4.64	4.42 (95)	5.22 (113)†	4.53 (98)	≤.001
Prescription drugs per patient	1.40	1.46 (104)	1.54 (110)§	1.74 (124)†	≤.001
% Patients having tests per visit‡	40.0	44.2 (111)†	55.9 (148)†	47.7 (119)†	≤.001
Mean value of tests per visit‡	23.10	26.40 (114)†	24.00 (104)	34.10 (148)†	≤.001
Mean value of tests per patient per y‡	104.30	110.10 (106)	132.10 (127)†	150.50 (144)†	≤.001

*Numbers in parentheses are the ratios of that specialty's utilization rate to that of family medicine, which was set to 100. Sample size varies by type of utilization: for hospitalizations, 9020; for office visits, 17 580; for prescription drugs, 17 780; for tests and procedures, 17 498. Of the total number of patients studied, 28% were seen by family physicians, 59% by general internists, 6% by endocrinologists, and 7% by cardiologists.

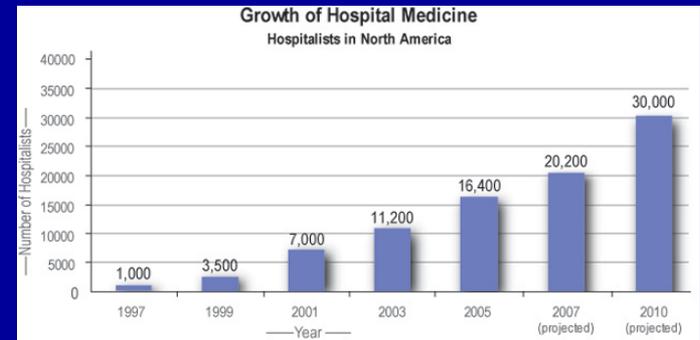
†P<.01.

‡Mean value of tests or procedures.

§P<.05.

Growth of Hospital Medicine

- Traditionally in US, primary care doctor cares for patient in clinic and in the hospital for general medical problems
 - AM hospital rounds and then clinic
 - Emphasis on continuity of care & doctor/patient relationship
- “Hospitalist” defined 1996 as physicians working $\geq 25\%$ in inpatient care
- >30,000 hospitalists today
- 1/3 of general medicine admissions
- Is this change in specialization a desirable one?
 - Can we improve care by understanding why hospitalists arose?



Advantages/Disadvantages of Hospitalists: Economics of Specialization

- Advantages of specialization
 - Inpatient focus, presence, expertise
- Disadvantages of specialization
 - Loss of Dr.-Pt. relationship (discontinuities in care, coordination costs)
- Optimal specialization balances benefits and costs
 - Economic Theory: Adam Smith
 - Medical Theory: Francis Peabody
 - TV Theory: Marcus Welby
- Adjust model
 - Improve handoffs, reduce handoffs
 - Adaptive Organizations Perspective (Dessain and Santos, JPE, 2006):
When high returns to specialization and high coordination costs, focus product to reduce needs for coordination (“Solution Shop” – Clay Christensen)

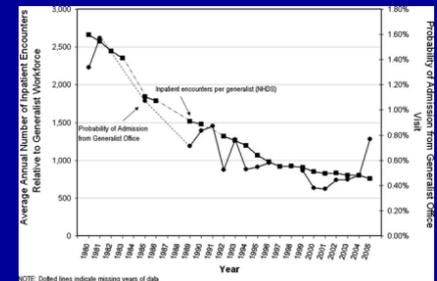


Growth of Hospitalist vs. Traditional Model: Two Theories

- Needs of hospital care
 - Inpatient experience, presence vs. discontinuities, loss of relationship with patients
 - Evidence of hospitalists savings mixed, modest

- Needs of ambulatory care
 - Declining hospital vs. ambulatory volumes so daily trip to hospital no longer economically attractive to PCPs
 - Developed/tested/confirmed classic economic model that predicts use of hospitalists as function of:

- Falling admissions relative to ambulatory visits
- Communication costs decline
- Transport costs rise
- Physician work hours

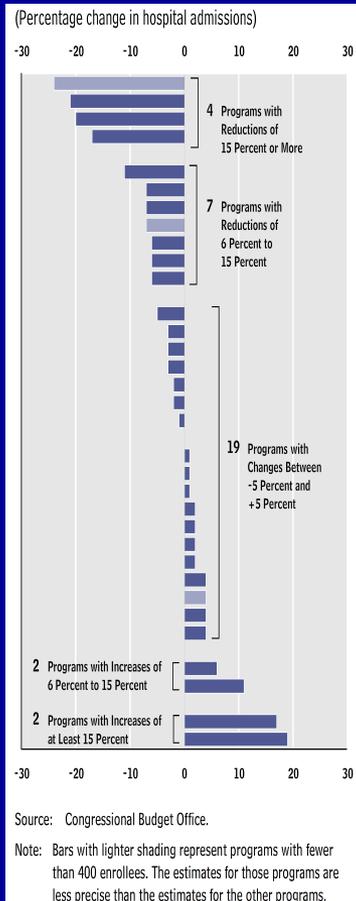


- Hospitalists better for patients? Way to address care coordination?

What is the Value of the Doctor-Patient Relationship for the Hospital Setting? And for Whom does it Matter?

- Rich literature on the value of the doctor-patient relationship
 - Trust, interpersonal relationship, communication btw. doctor/patient, knowledge of the patient
 - Patients value seeing their own doctor in the hospital
 - Observational studies show lower costs, better outcomes with continuity of care
 - Care by PCP for > 10 years: 15% lower Medicare costs (Weiss et al AJP 1996)
 - Lung CA patients cared for by own doctor in terminal hospitalization have 25% lower (OR=0.74, p<0.01) odds ICU use (Sharma et al, Annals, 2009)
 - One experimental study
 - Wasson et al (JAMA, 1984) randomized 776 complex VA patients to see same physician vs. different physician in each primary care visit. Continuous care group:
 - 49% lower emergent hospitalizations (20% vs. 39%, p<0.002)
 - 38% lower hospital days (6.6 vs. 9.1, p<0.02)
 - 74% lower ICU days (0.4 vs. 1.4, p<0.01)
- Discontinuity harmful/costly, esp. for complex, frequently hospitalized patients
- Efforts to improve care coordination logical strategy to improve care, lower costs

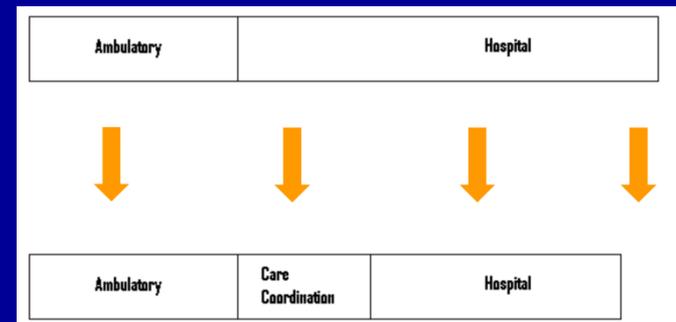
CBO Lessons from Medicare Care Coordination Projects



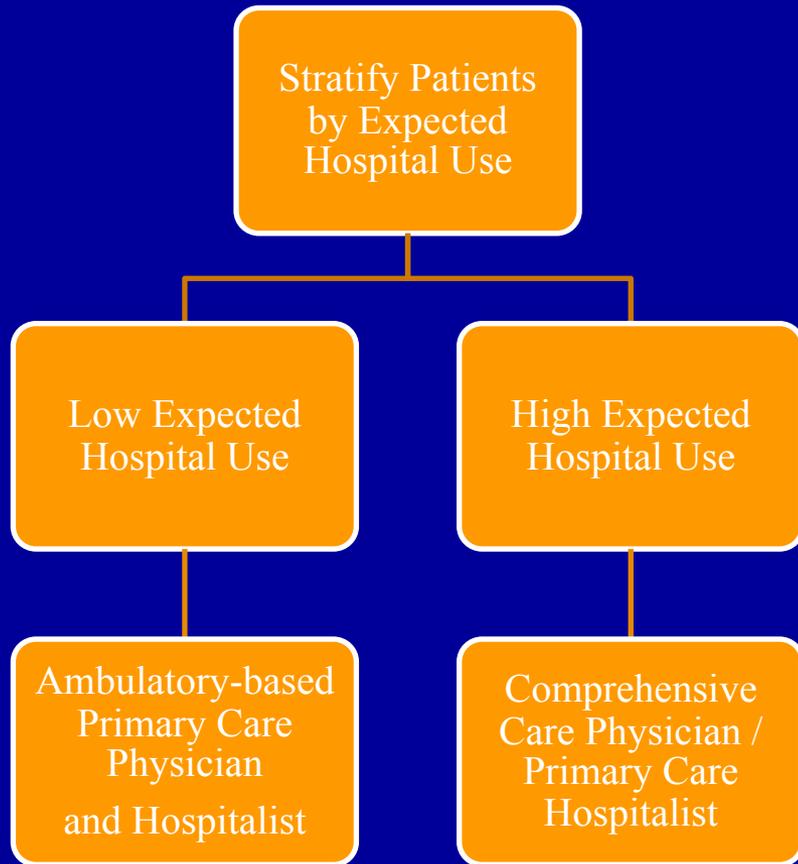
Design Feature	Number of Programs	Average Effects (Percent)		Change in Regular Medicare Spending Needed to Offset Programs' Fees ^b (Percent)
		Hospital Admissions	Regular Medicare Spending ^a	
Program Fees Put at Risk				
Yes	18	0	-1	-11
No	16	-2	1	-13
Substantial Direct Interaction Between Care Managers and Physicians				
Yes	7	-7	-6	-13
No	27	0	0	-11
Interaction Between Care Managers and Patients ^c				
By telephone and in person	8	-7	-3	-13
Primarily by telephone	23	1	0	-11
All Programs	34	-1	0	-11

Other Lessons:

1. Target interventions to high-risk enrollees
2. Gather timely data on use of care, esp. hospital admissions
3. Focus on transitions in care settings
4. Use team-based care
5. Limit the costs of intervention



Tailored Approach to General Medical Care



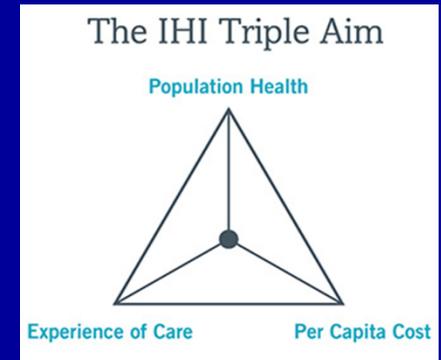
- Advantages?
 - Most frequently hospitalized patients get own doctor in both settings
 - Patients value continuity
 - Decreases unneeded testing/treatment
 - Lowers doctor costs
 - All hospitalized patients get doctors with significant hospital experience and presence
 - Patient choice restored
 - CCP model can work for physician
 - Patient-centered medical home / bundling / readmission penalties
 - Smaller primary care base can fill hospital
- Challenges?
 - Are enough patients willing to switch?
 - Will doctors let patients switch?
 - Will doctors do this job?
 - Can it be economically viable?
- CMMI study (2012)

Key CMMI Design Elements

Lessons from Literature	Program Element
Focus on High-Cost Patients	Patients expected to spend >10 days in hospital in next year; up to 40% of general medicine days, annual Medicare costs \$100,000 per year; diverse recruitment sources, including resident clinics
Maximize Direct Interaction with CCP/PCH	Panel size: 200. AM on wards. Midday buffer. PM in clinic.
Build Interdisciplinary Team	5 CCPs = 1000 patients. Organize CCP/PCH, APN, nursing, social work, etc. around common patient medical and psychosocial needs
Minimize costs (esp. coordination costs)	Small, well-connected teams, provider continuity
Focus on care transitions	Post-discharge calls, Health IT
Financial incentives	Prepare for shared savings (randomized internal controls, external controls from Chicago AMCs via UHC)
Sustainable roles and training for care team	Support the team members (group to spread weekend coverage, night coverage, psychosocial support, relevant clinical training (e.g., communication, palliative care), academic development, recognition).
Rapid cycle innovation	Frequent, data-driven meetings that seek to engage relevant leaders
Rigorous evaluation	Randomized design, Medicare claims data, external and internal evaluators

Status and Early Lessons

- Program operations
 - Weekly operations and evaluation meetings
 - Patient recruitment ~ 2,000 of 2,000 patients in June 2016
 - Hospital > ED > departing PCPs > community
 - CCP panel size 150 patients; ~3 inpatients/CCP per day
- Positive interim qualitative and quantitative impressions
 - Population health metrics driven by evaluation plan
 - Better care, better health, lower costs
 - Value of multiple data sources (e.g., admissions)
 - Need for longitudinal follow-up and analysis
 - Data on individual patients to help CCPs improve care
 - Weekly discussions of complex and/or informative cases
- Addressing dissemination, implementation models
 - Financial models for expansion/sustainability
 - Fee for service (revenue maximization, clinical volumes, CCM codes)
 - Risk-based contracts (cost mgt, predictive modeling, Medicare Adv., employer)



Limitations of CCP Model

- ~30% persons randomized to CCP do not fully engage
 - Not make appointments, not keep appointments if made
 - Only weak predictors: recruitment in ED, young, old, sick, healthy, male, low social support, transport difficulties, low income (median family income 25K, 60% Medicaid)
- Limited resources to address social/behavioral determinants
 - Facility-based social work focused on referral, behavioral health
 - Clinician time to address social/behavioral determinants, even with home visits
 - Relationship between physician and patient builds slowly

Comprehensive Care, Community, and Culture (C4P)

- CCP
- Community and Cultural Arts Program: Artful Living Program
 - Performance arts events
 - Associated social events
 - Participatory arts events
 - Physical activity (dance, exercise, gardening, cooking, crafts)
 - Narrative (e.g., Stanford Letter Project)
 - Life skills (financial planning, personal safety) (Urban Labs Crime/Poverty Labs, CPD)
 - Iterative, asset-based patient-centered design targeting difficult to engage
 - ED and inpatient and phone based interviews, including in course of routine care
- Community Health Worker
 - Trained with help from established CHW program (Sinai Health System)
 - Closely integrated with clinical team, acute or focused sustained engagement
 - Guidance from quarterly surveys of unmet social needs (Health Leads)

Evaluation

- Three-arm RCT: Standard Care, CCP, C4P
 - Pilot with 200 persons/arm to begin in July, 2016
- Measures
 - CCP outcomes (better care, better health, lower cost)
 - PROMIS measures
 - Patient engagement (in care, community/social and cultural activities)
 - Patient activation measure (PAM)
 - Unmet social needs
 - Health and overall life goal attainment scales

Thank You!

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