



Community Health Workers as System Navigators: The Case of the Community Connector Program and the Long-Term Care System

*Office Of
Community-
Based
Public Health*

*Fay W.
Boozman
College of
Public Health*

*University of
Arkansas
for Medical
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**Holly C. Felix, PhD, MPA
Associate Professor of Health Policy**

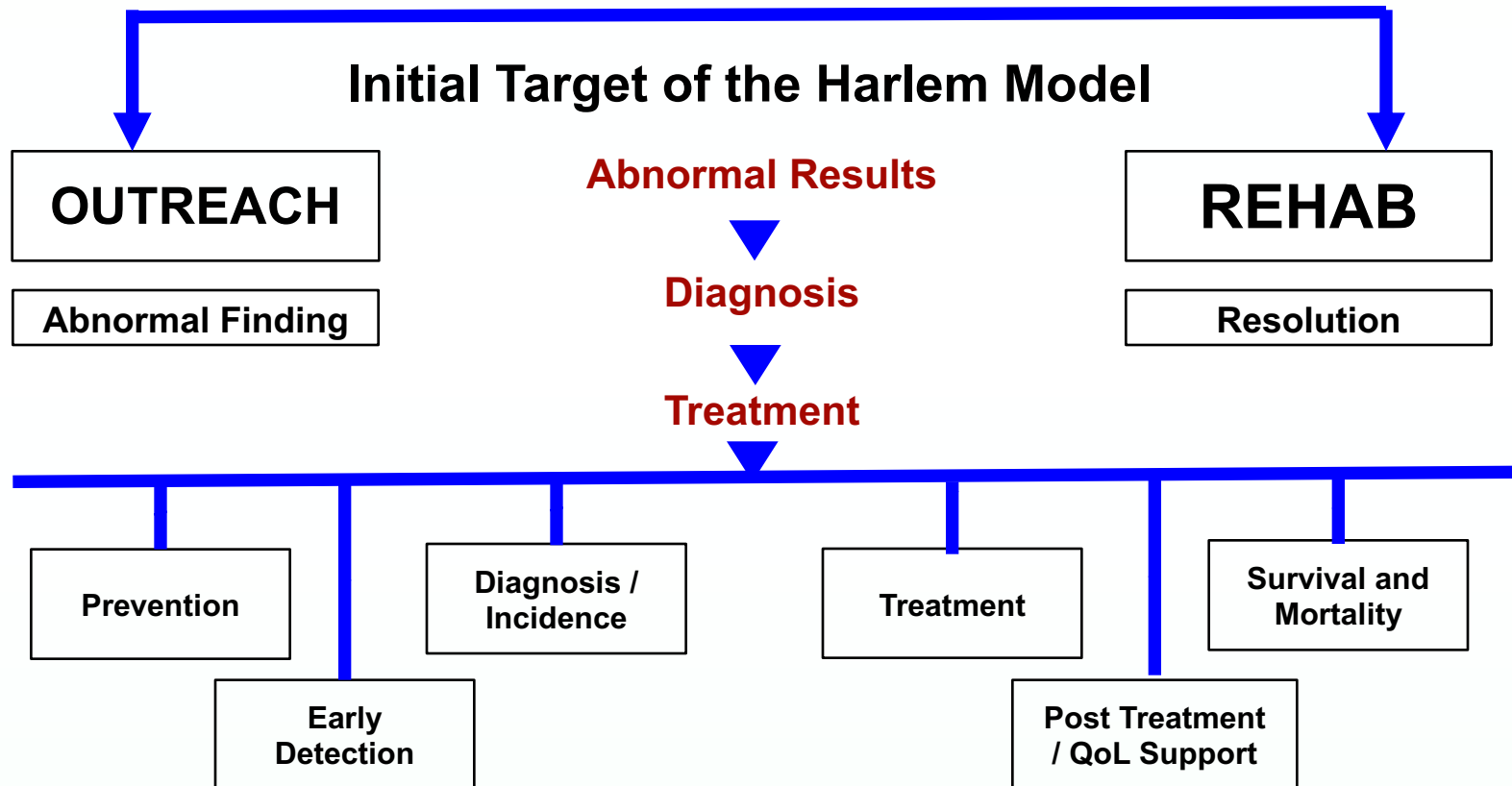
Outline

1. CHWs as Navigators
2. Overview of the LTC System (Context)
3. The Community Connector Program
4. CCP Evaluation Methods and Results
5. Questions

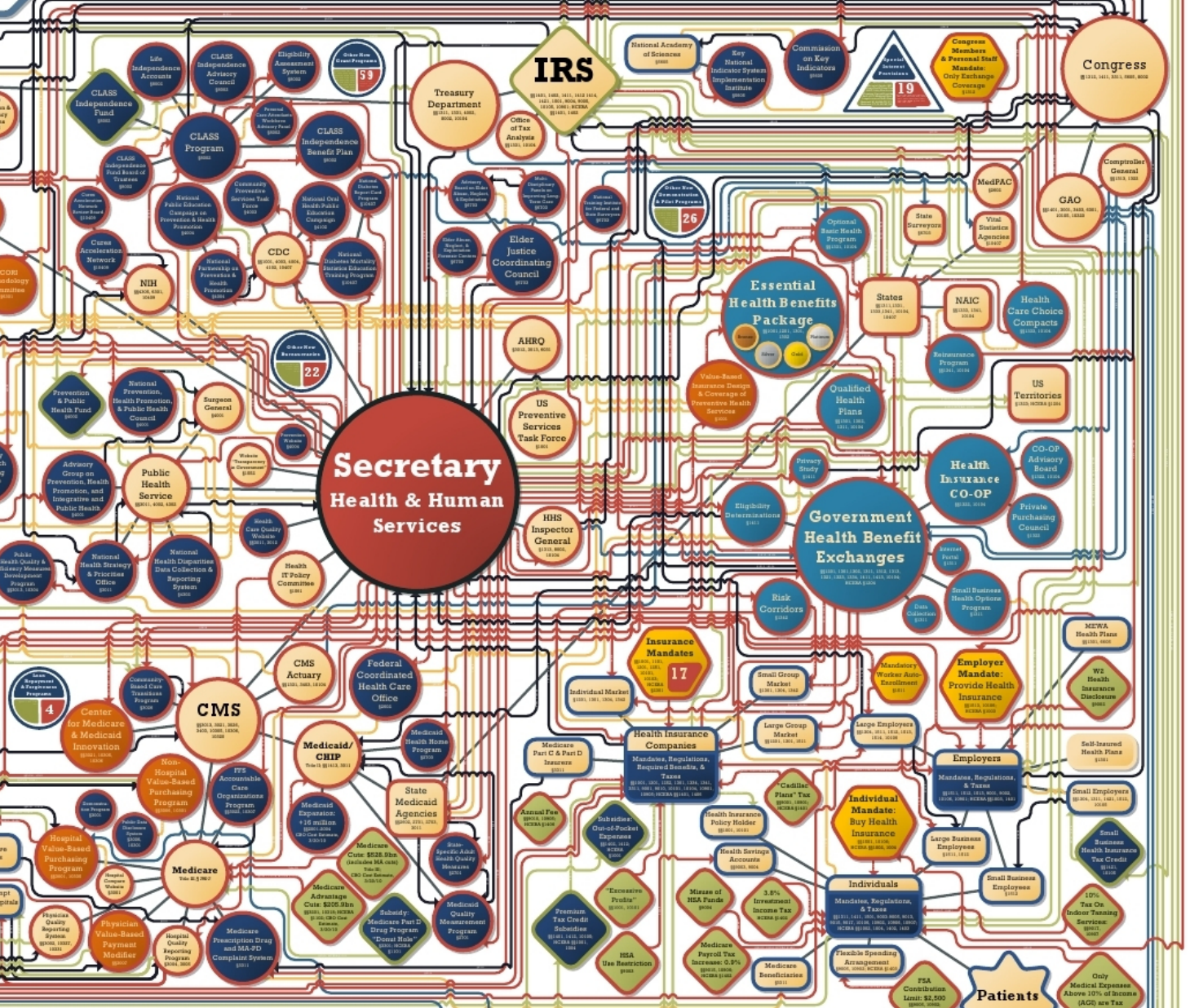
Community Health Workers

- Community-Trusted Front-line Workers (APHA)
- DOL defines roles of CHWs as...
 - Assisting in adoption of healthy behaviors
 - Conducting outreach for health-related programs
 - Providing resource information, social support, informal counseling, and direct health-related services
 - Advocating for individuals and community health needs
 - Collecting data to help identify community health needs

Patient Navigation



Source: PNI



- Regulations/ Requirements/Mandates
- Reporting Requirements
- Oversight
- Money Flows
- Consultation/Advisory/ Info Sharing
- Structural Connections

AGI: Adjusted Gross Income AHRQ: Agency for Healthcare Research and Quality CDC: Centers for Disease Control & Prevention CHIP: Children's Health Insurance Program CLASS: Community Living Assistance Services & Supports CMS: Centers for Medicare & Medicaid Services CO-OP: Community Operated & Owned Program FFS: Fee-for-service FFA: Flexible Spending Arrangement GAO: Government Accountability Office HCERA: Health Care & Education Reconciliation Act	HSA: Health Savings Account IPAB: Independent Payment Advisory Board IRB: Internal Revenue Service MA-PD: Medicare Advantage Prescription Drug MedDPC: Medicare Payment Advisory Commission MEDM: Medicare Early Risk Detection NAC: National Association of State Long-Term Care Regional Systems NEWM: New Mexico Employee Welfare Arrangement NAL: National Association of Insurance Commissioners NIH: National Institutes of Health PCORI: Patient-Centered Outcomes Research Institute	Patient Protection and Affordable Care Act, P.L. 111-148; Health Care & Education Reconciliation Act, P.L. 111-152 Prep are by Joint Economic Committee & Republican Staff Congressman Kevin Brady, Senior House Republican Senator Sam Brownback, Ranking Member
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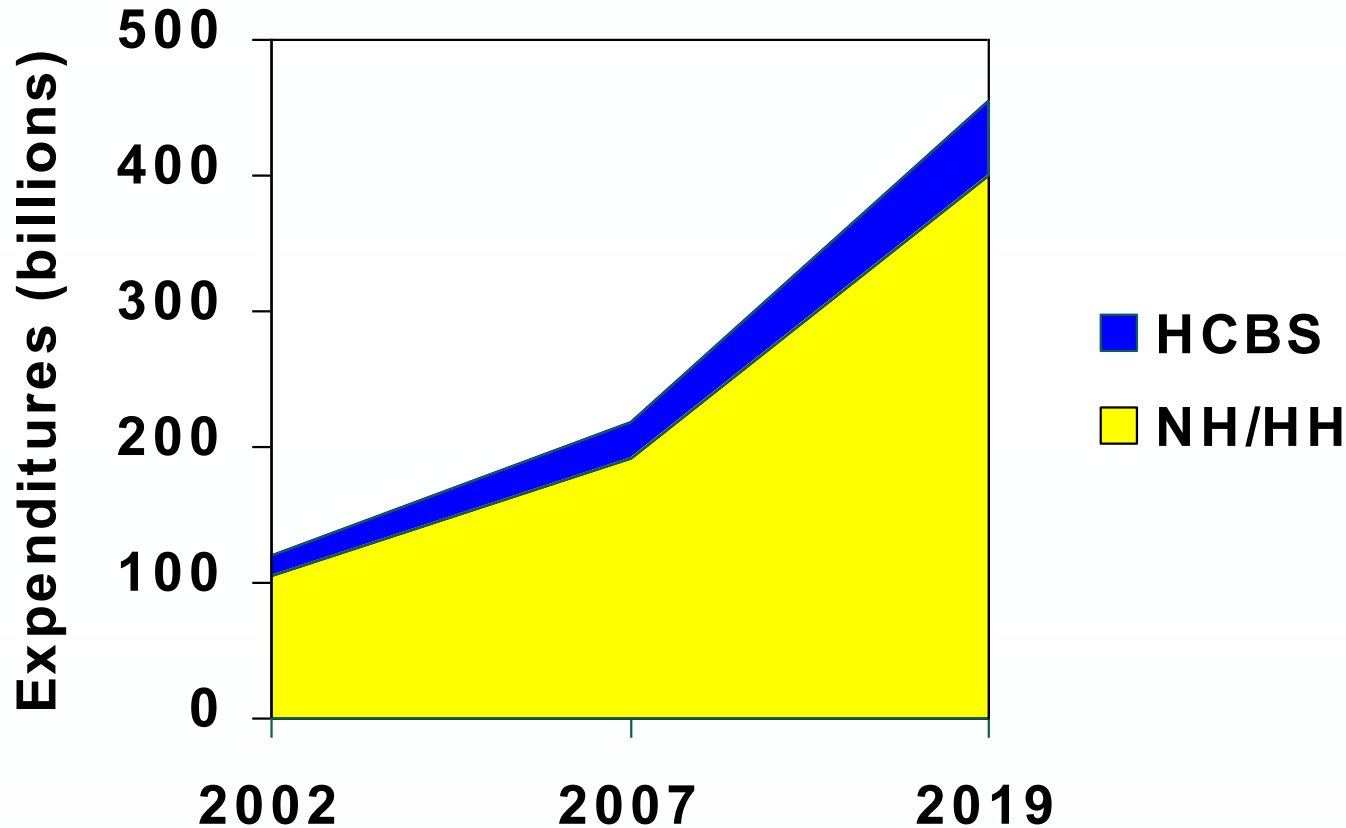
Community Connector Program

- **Connecting adults with physical disabilities and elderly to HCBS**
- **3-year demonstration**
- **Medicaid administrative outreach service**
- **Evaluated to determine cost savings**

Background

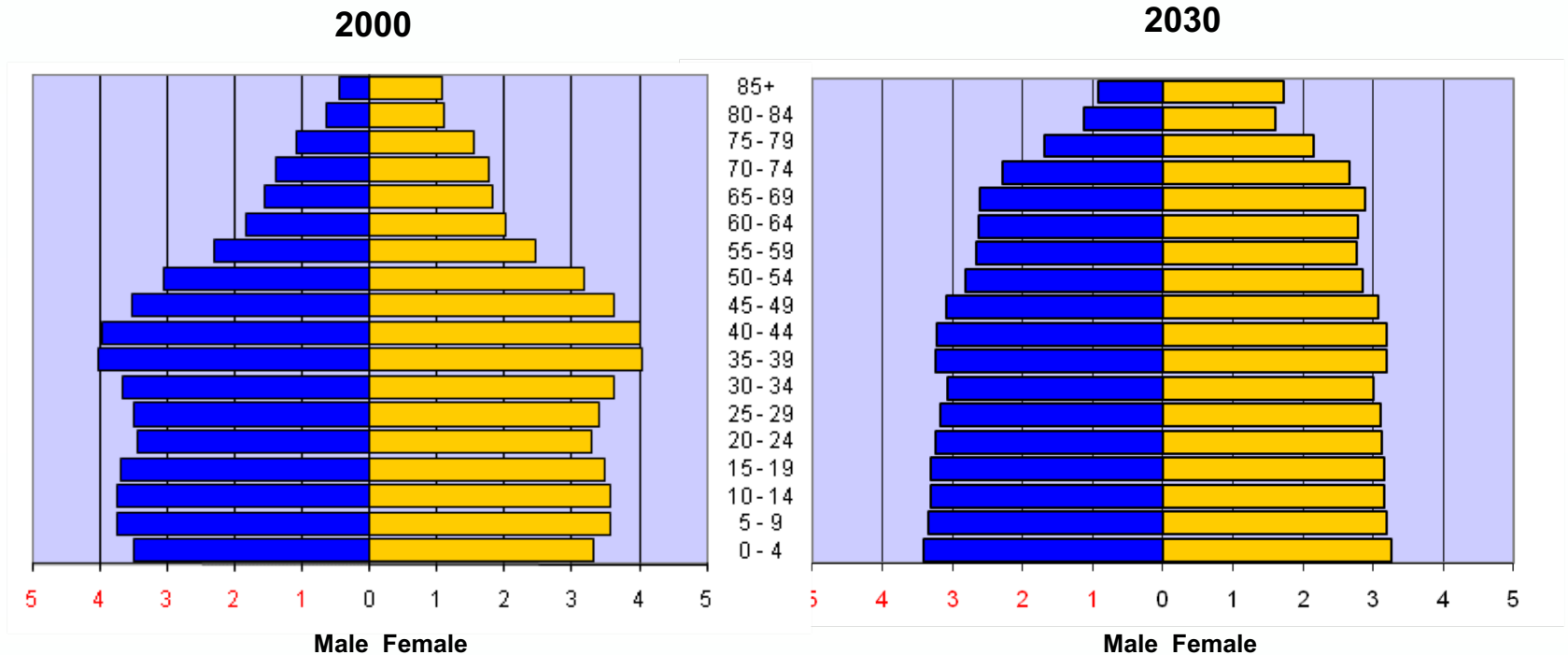
- Long-term care system
- Current issues
 - Costs
 - Demand
 - Alternatives
 - “Woodwork”

High and Increasing Cost



Source: Truffer et al 2010, CMS NHE file, AARP, author calculations

Graying of America



Source: US Census Bureau, 2005

Nursing Home vs HCBS



Source: Sanderson, 2004; CMS, 2002

Office of Community-Based Public Health, College of Public Health

Out of the Woodwork



Source: GAO, 2000; Grabowski, 2006; Kaye et al 2009

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Community Connector Program

- Used community health workers – called Community Connectors
- Trusted members of the community
- “Outside the system”
- Outreach and navigation service
- Training

Source: Felix et al, 2007

Office of Community-Based Public Health, College of Public Health

Community Connectors

- 8.5 Connectors planned per year

	FY2006	FY2007	FY2008	FY2009
Actual Connectors FTE	5.17	7.25	6.83	8.42
Planned Connectors FTE	8.5	8.5	8.5	8.5

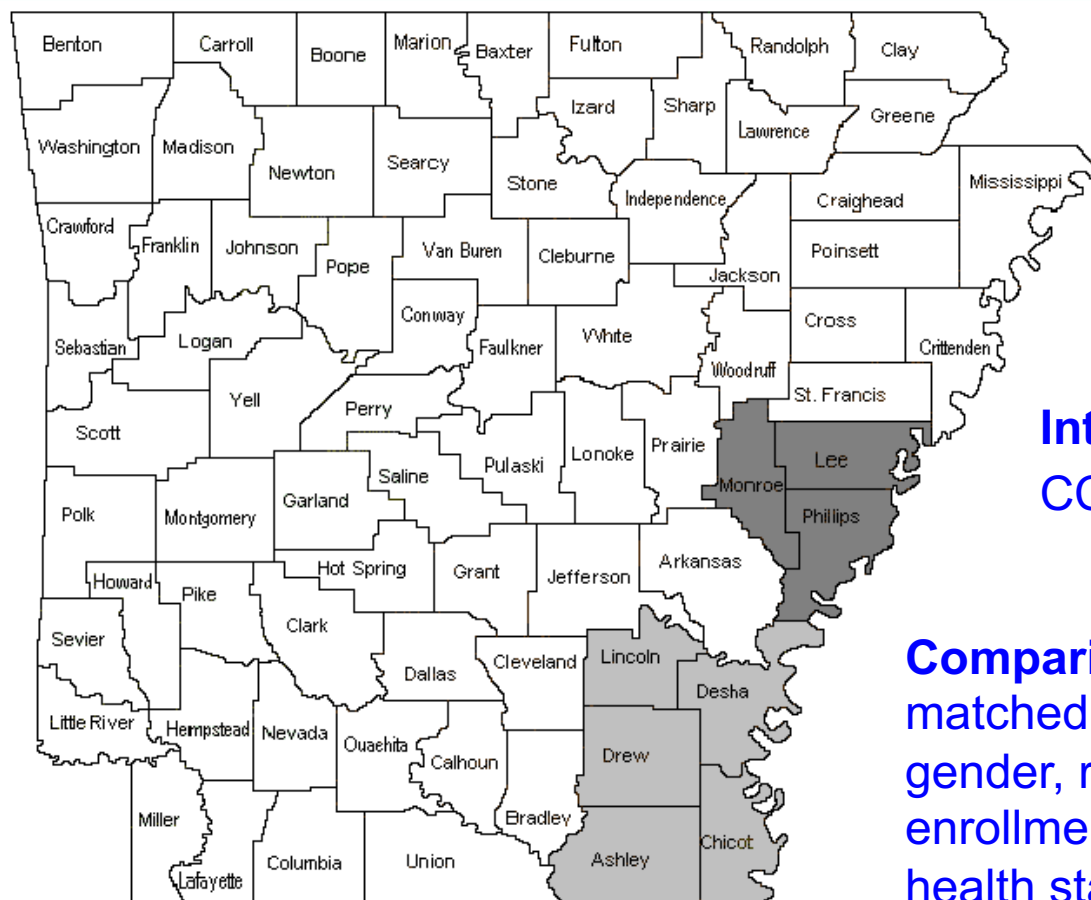
- \$1.1 million program

	Program Year			
	FY 2006	FY 2007	FY 2008	FY 2009
Expenditures	\$248,386	\$325,186	\$322,722	\$239,125

Methods

- **Quasi-experimental design**
 - Intervention group
 - Matched comparison group (not randomized)
 - Multiple years of post-intervention observations
 - Pre-intervention observations for the subgroup of previously enrolled Medicaid recipients
- **Assessment dimensions**
 - Reach: characteristics of program participants
 - Implementation: types of service connections
 - Outcomes & Impact: service use and spending

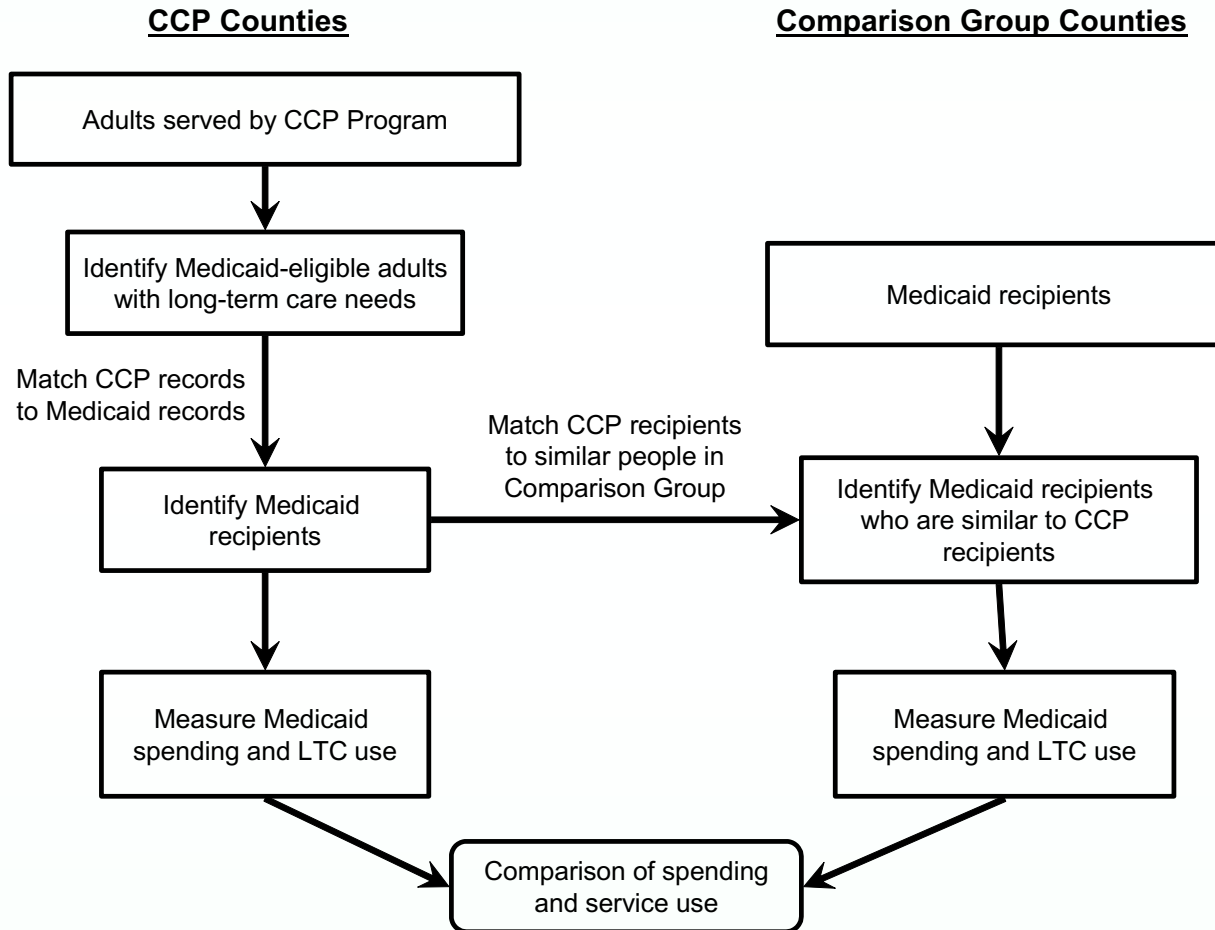
Comparison Group



Intervention Group:
CCP participants

Comparison Group: statistically matched to CCP participants on age, gender, race, eligibility category, enrollment duration, waiver enrollment, health status, prior-year spending

Evaluation Schematic

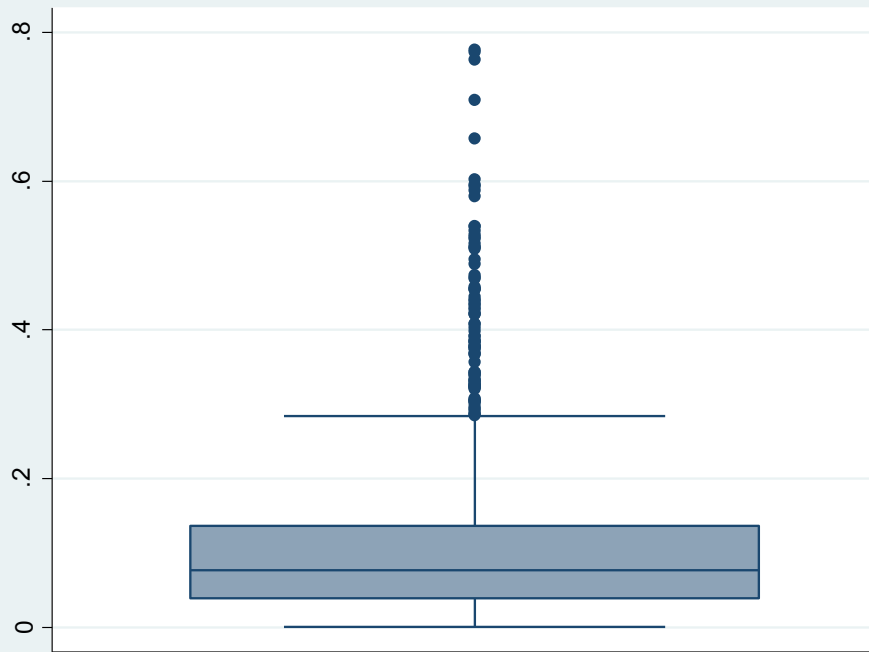


Participants served and matched to Medicaid data

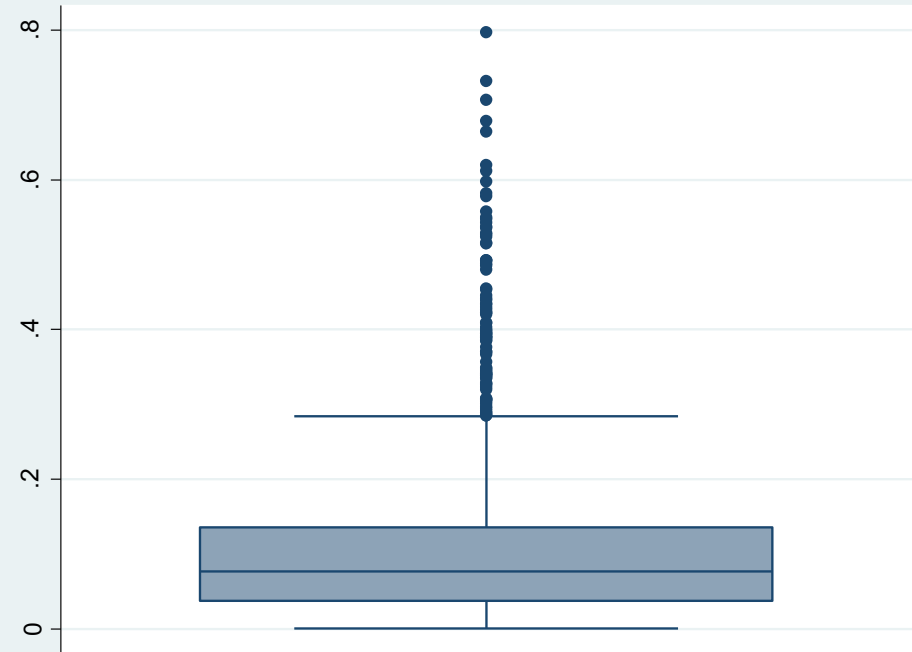
CCP Participant Groups	Number Served by CC Program	Number of Medicaid-enrolled Recipients	Number Matched to Claims
Cohort 1: entered in FY2006	807	285	150
Cohort 2: entered in FY2007	534	526	374
Cohort 3: entered in FY2008	383	300	194
Cohort 4: entered in FY2009	<u>398</u>	<u>362</u>	<u>203</u>
Total	2122	1473	921

Results of statistical matching

Distribution of Propensity Score



CCP Participants



Comparison Group

Baseline / Prior Year Characteristics, by Group

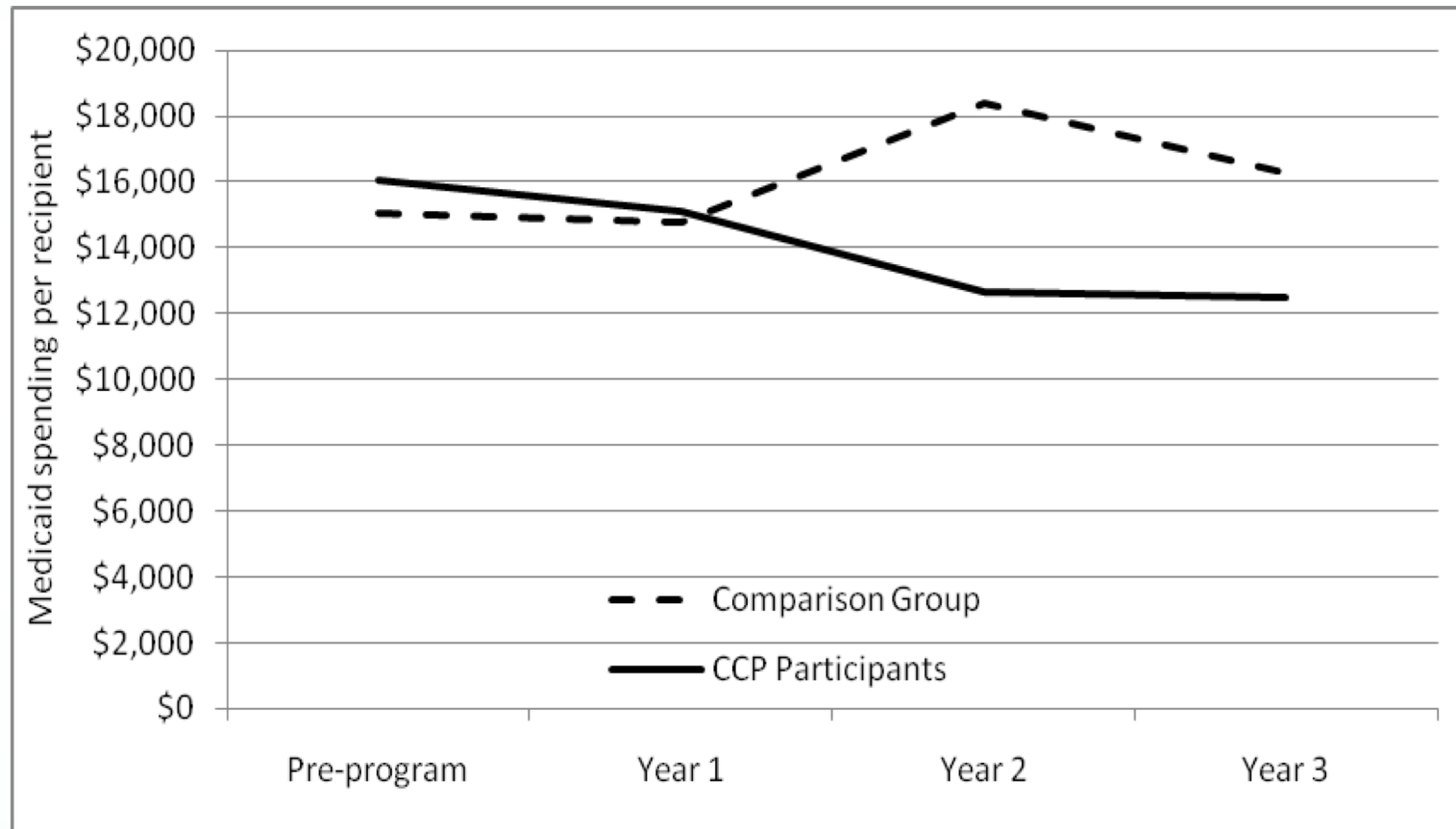
	CCP Participants (n=919)		Comparison Group (n=944)	
<u>Variable</u>	<u>Mean</u>	<u>S.D.</u>	<u>Mean</u>	<u>S.D.</u>
Age (years)	66.3	16.7	66.8	20.1
Female (%)	67.0%		68.1%	
African-American race (%)	76.9%		78.0%	
Medicaid eligibility category (%)				
Aged	33.8%		33.1%	
Blind or disabled	57.5%		58.4%	
Qualified Medicare beneficiary	3.9%		1.8%	
Poverty-related	4.5%		5.9%	
Other	0.3%		0.8%	
Dually eligible for Medicare (%)	54.2%		54.0%	
Enrolled in Medicaid in year prior to CCP (%)	66.7%		66.4%	
Years enrolled in Medicaid	6.0	6.6	6.0	6.4
Enrolled in Elder Choices Waiver (%)	9.9%		8.8%	
Enrolled in Alternatives Waiver (%)	7.4%		5.8%	
Average prior-year Medicaid (\$1000s)	19.2	21.8	15.6	21.4
Charlson comorbidity index	0.6	1.2	0.7	1.9

Service use and spending after program contact

	<u>CCP Participants</u>		<u>Comparison Group</u>	
<u>Per Recipient Use & Spending</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Mean</u>	<u>Std. Dev.</u>
Any inpatient utilization	8.6%		9.7%	
Annual inpatient spending	\$1,994	\$10,931	\$1,622	\$15,671
Any outpatient medical utilization	78.6%		77.6%	
Annual outpatient medical spending	\$12,442	\$27,744	\$12,341	\$17,790
Any nursing home utilization	0.2%		1.9%	
Annual nursing home spending	\$289	\$8,125	\$3,904	\$29,173
Any other LTC utilization	55.1%		39.8%	
Annual other LTC spending	\$3,365	\$6,635	\$1,607	\$3,215
Any service utilization	78.7%		78.8%	
Annual total spending	18,090		19,474	

Estimates of program impact

Regression-Adjusted, Difference-in-Difference Estimates



Estimates of program impact

Regression-Adjusted, Difference-in-Difference Estimates

Time Period*	Impact on Spending	95% Conf. Int.
Year 1	-6.0%	(-14.2, 2.3)
Year 2	-21.4%	(-32.8, -10.0)**
Year 3	-22.3%	(-35.4, -9.2)**
All years	-23.8%	(-32.1, -15.5)**

After adjusting for baseline and time-varying differences between groups

*Reference year is one year prior to CCP participation

**p<0.05

Cost Neutrality Estimates

Three Year Aggregate Estimates, FY2006-08

Combined Medicaid spending reductions:	\$3.515 M
Program operational expenses:	\$0.896 M
Net savings:	\$2.629 M
Return on Investment (ROI):	\$2.92

Limitations

- Results pertain only to the 63% of participants with linked Medicaid records
- Increased Medicaid enrollment (e.g. woodwork effect) could moderate cost savings but appear modest to date
- Other potential program effects not examined
 - Medicare cost offsets
 - Health and functioning
 - Quality of life
 - Caregiver burden
 - Workforce and economic development

Conclusions

- Program appears cost saving within 2 years
- Reductions persist for 3.5 years, but longer-run spending effects are unknown
- CCP CHW model appears to be an effective targeting mechanism to achieve cost savings

Conclusions

- Evidence needed on performance of CHW Program
 - Evidence of effectiveness
 - Evidence on cost effectiveness

Acknowledgements

Partners

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Questions ??