KU SCHOOL OF MEDICINE WICHITA
The University of Kansas

# Marginalized populations in our own backyard: a care management program for disabled, chronically ill, Medicaid clients in a Midwest metropolitan community

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## Presenter Disclosure

Ruth E. Wetta

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## Today's Learning Objectives

- Discuss applied research methods that may be used to analyze administrative claims data.
- Explain factors that may influence patient adherence to a medical regimen.

## Background

Primary Care is defined as one's regular source of care

- characterized by continuity, comprehensiveness, coordination, convenience and availability [1, 2]
- associated with greater use of preventive health services, compliance with appointment keeping, use of medications and health outcomes [3,4]

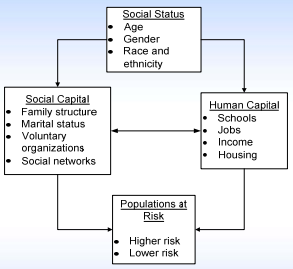
Lack of regular primary care has been linked with:

- more reliance on emergency department (ED) services, longer hospitalizations, greater resource consumption and poorer health status [5-7]

Risk factors for under use of primary care include

- minority status, low income, cost of care, and not having health insurance [8-20]

**Aday's Predictors of Populations at Risk**




Aday L. (2001a) *At Risk in America*. San Francisco: Josey-Bass Publishers

## Case Management

Case management or care coordination

- method of overcoming obstacles through the coordination of comprehensive health, educational, and social services [21]
- reduces fragmentation, duplication, and unnecessary services [21]
- linked with client improvement on quality of life indices, ability to remain in a normal community setting, and decreased reinstitutionalization [22-25]

Factors contributing to rapid growth of case management in health care including:

- health care inflation, legislative initiatives, employer benefits, chronicity as a leading health problem, and prevention initiatives [26]

## Enhanced Care Management (ECM)

- Based on the Chronic Care Model and elements of care coordination, case management, disease management.
  - support and strengthen patient-provider relationships
  - support patient in implementing medical regimen
  - navigate the health care system
  - education and hands-on training to maintain their health
  - Connect to community resources.

## Enhanced Care Management

- Focus population was Medicaid HealthConnect enrollees (fee-for-service external to Medicaid's managed care contracts) in Sedgwick County (approximately 3,500 to 5,000 people)
- Funded by the Kansas Health Policy Authority
- Goals for the ECM care management program were to:
  1. improve the health status of this chronically-ill patient population (usually three or more chronic conditions)
  2. coordinate patients' access to health care services in more effective ways,
  3. educate patients about managing their health conditions at home
  4. promote more efficient use of Medicaid services

## Study Goals

- Identify the major diseases affecting the low-income disabled HealthConnect clients
- Describe healthcare services (medical provider, hospital services, pharmacy) used by HealthConnect clients
- Assess activity associated with patients with target diagnoses (congestive heart failure, asthma, diabetes)
- Describe perceived health status, perceived social support status, readiness to change health behaviors and perceived control over health
- Assess changes in health status and healthcare use during ECM enrollment
- Compare results to referent group in Wyandotte County, Kansas

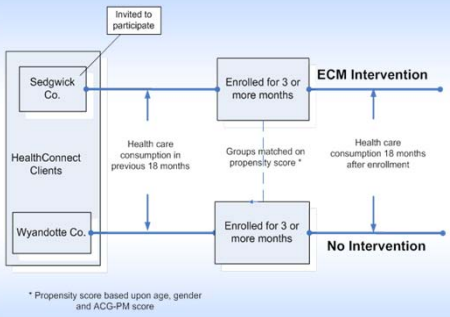
## Measures

- Medical Outcomes Study Social Support Survey (MOS SSS) [27]
- University of Rhode Island Change Assessment Scale (URICA) [28] to assess client's readiness to change
- Short Form-8 (SF-8) Health Status Instrument [29]
- Multidimensional Health Locus of Control (MHLC) Instrument [30]
- Collected in first month of the client's ECM episode and SF-8 and MHLC were repeated at disenrollment

## Data Sets

- Charisma Salis: client demographic, social, health-related information and patient contacts (number and time ) including phone calls, in-person meetings, collateral contacts, contacts with providers, patients' medical histories, medications and referrals
- State of Kansas Medicaid claim data and the Clinical Classifications Software (CCS)
- Financial data was adjusted for inflation based upon the Bureau of Labor statistics on medical costs.
- Ambulatory Care Grouper-Predictive Modeling (ACG-PM) scores for both Sedgwick and Wyandotte counties.

## ECM and Referent Group Matching Procedure



## Results

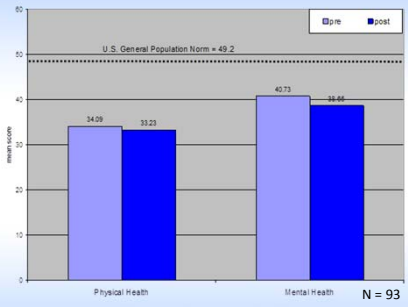
- Aged 41-64 years (76.4%)
- Female (62.3%)
- White, non-Hispanic (57.0%) and African-American (30.0%)
- High school education or less (74.3%)
- Single/divorced (84.9%)
- Income less than $1,000 per month (94.9%)
- Did not own home (90.0%)
- Lived at current address less than 24 months (57.1%)
- Readiness to change score at enrollment indicated clients were in "pre-contemplation" about behavior change

## Perceived Social Support, ECM Clients vs. MOS Norms

| | ECM Clients (N=254) | | MOS Norms (N=2,987) | t | df | p |
|---|---|---|---|---|---|---|
| | Mean (SD) | | Mean (SD) | | | |
| Emotional/information | 61.36 (23.85) | | 69.6 (25.5) | -5.257 | 304 | <.001 |
| Tangible | 55.36 (27.59) | | 69.8 (28.5) | -7.987 | 300 | <.001 |
| Positive interaction | 55.40 (28.6) | | 69.8 (26.0) | -7.756 | 289 | <.001 |
| Affectionate | 53.89 (30.34) | | 73.7 (28.3) | -10.041 | 291 | <.001 |
| Overall Support index | 58.21 (25.04) | | 70.1 (24.2) | -7.284 | 294 | <.001 |

Calculated using http://home.clara.net/sisa/t-test.htm; Observed range varied from 0-100.

## SF-8 Scores at Enrollment and One Year.

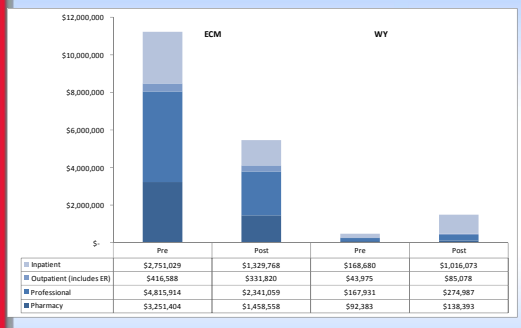



N = 93

## ECM Baseline Multidimensional Health Locus of Control Scales Mean Scores

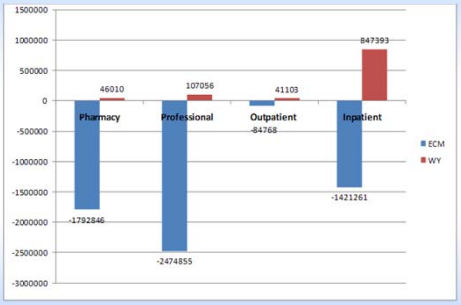
| Health Locus of Control Scale | ECM Clients N=233 | Chronic Illness N= 609 | College Students N= 749 | Healthy Adults N=1,287 | Preventive Health N= 720 |
|---|---|---|---|---|---|
| Internal | 25.48 | 25.78 | 26.68 | 25.55 | 27.38 |
| Chance | 18.14 | 17.64 | 16.72 | 16.21 | 15.52 |
| Powerful Others | 22.01 | 22.54 | 17.87 | 19.16 | 18.44 |

## Place of Cost Differences, Pre/Post Period




| | | | | |
|---|---|---|---|---|
| Inpatient | $2,751,029 | $1,329,768 | $168,680 | $1,016,073 |
| Outpatient (includes ER) | $416,588 | $331,820 | $43,975 | $85,078 |
| Professional | $4,815,914 | $2,341,059 | $167,931 | $274,987 |
| Pharmacy | $3,251,404 | $1,458,558 | $92,383 | $138,393 |

## Change in Paid Claims (dollars) by Place of Service: ECM vs. Wyandotte County, Pre- and Post-Period.



## Clinical Tracer Conditions for Quality

| | ECM | | Comparison | |
|---|---|---|---|---|
| | Pre | Post | Pre | Post |
| CHF Point prevalence | 16% | 16% | 2% | 7% |
| Ace inhibitor | 55% | 49% | 0 | 0 |
| | | | | |
| Diabetes Point prevalence | 51% | 51% | 13% | 16% |
| HgbA1c Tests | 85% | 80% | 75% | 140% |
| | | | | |
| Asthma Point prevalence | 36% | 36% | 15% | 7% |
| Controller medication ratio | 0.57 | 0.62 | 0.13 | 0.26 |

## Limitations

- Findings are limited to clients with claims data
- Less than two years of data available for analysis, which excluded 70% of enrolled clients
- May not be representative of the disabled Medicaid population in Kansas or the US
- Propensity score based on age, gender and ACG-PM score (mandated by funding agency) did not identify a comparable group for evaluation
- ECM group appears to have had a higher severity of illnesses
- Future studies should include chronologically sequenced, longitudinal episodes of care analysis
- Further explore relationships between perceived social support and health resource consumption

## Conclusions and Implications

- Mental health issues present barriers to patient empowerment/self-care
- Results suggest ECM program was effective in ameliorating effect of poor mental health and poor health literacy in achieving improved health outcomes and improved healthcare resource use while maintaining health status
- Overall costs decreased in ECM group but increased in comparison group
- Changes in utilization measures may suggest increased use of primary medical home and more appropriate use of prescribed medications
- Combination of social service case management and development of life management skills, in addition to care coordination and health education by registered nurses, creates a synergistic model that appears to improve the use of the primary medical home, reduce hospital-based costs and maintain health status *while* reducing expenses
- Model may be especially effective with complex patients

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