Leveraging social work in primary care: The Ambulatory Integration of Medical and Social (AIMS) Model

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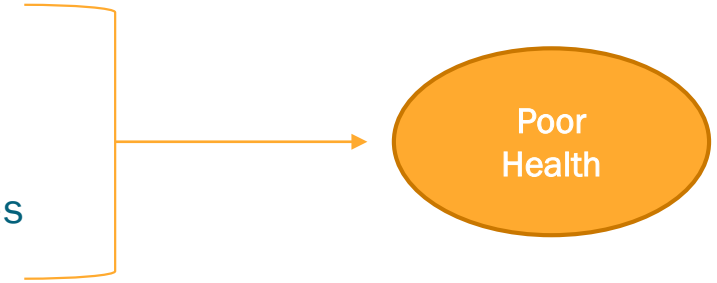
The AIMS Model

Background

- **Non-medical (social needs)**
  - Access to health care
  - Access to medication
  - Mental / behavioral health services
  - Transportation, etc.



- **Patients see primary care physicians (PCPs) when non-medical needs turn into physical needs**
  - Yet, most PCPs not confident in addressing their needs (RWJF – "Blind side" study)
- **Chronic conditions open door for more psychosocial issues, as well**
  (Commonwealth Fund – Health Care in America project)

Moving toward a Medical Home model

- **Patient-Centered Medical Home (PCMH): A model of comprehensive & coordinated primary care**
  - Various accreditation bodies (e.g. NCQA, JCAHO, HRSA), varying levels of recognition

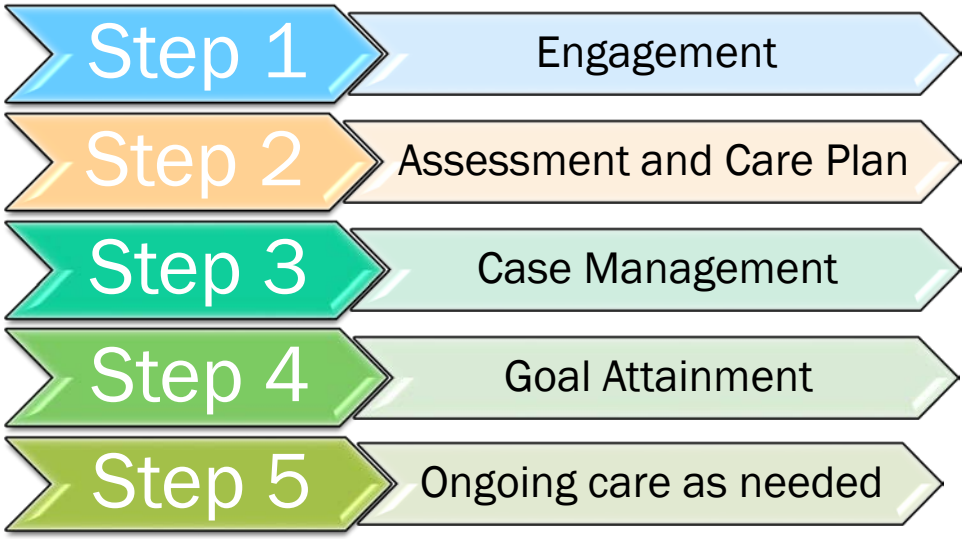
- **Key functions and attributes:**
  - Enhanced access & continuity
  - Identify & manage patient populations
  - Plan & manage care
  - Provide self-care support & community resources
  - Track & coordinate care
  - Measure & improve performance

An Opportunity to Contribute

- **Social workers can help primary care be more comprehensive, patient-centered, and effective by addressing barriers to health, such as:**
  - Personal choices in everyday life
  - Social isolation, family structure/issues, caregiver needs
  - Environment – home safety, neighborhood
  - Economics – affordability, access
  - Gaps in care due to fragmentation or complex systems to navigate
  - Self-management and health literacy challenges
- **Social workers addressing these barriers can also help PCMHs meet their requirements**

AIMS: An Interprofessional Model

- Care management model integrated into primary and specialty care clinics
- Delivered by master's level social workers



Complex skills social workers use throughout care management

Assessment

- Biopsychosocial-spiritual assessment
- Mental health diagnosis
- Triage
- Health risk assessment
- Health literacy assessment

Intervention

- Problem-solving
- Psychoeducation
- Crisis intervention
- Harm reduction
- Behavioral and psychotherapeutic interventions
  (more details next slide)
- Interprofessional communication / collaboration
- Patient-centered care planning
- System navigation / community referrals

Evaluation

- Evaluate and document health outcomes
- Administer validated measures to assess progress
- Assess goal achievement

Source: Rowe, Rizzo, Guthrie, Vail, Kang, Golden (2018)

Types of behavioral and psychotherapeutic interventions

Cognitive behavior therapy

- Reframing, behavioral activation

Acceptance and commitment therapy

- Cognitive diffusion, values assessment, mindfulness

Relational / psychodynamic

- Use of self/countertransference

Dialectical behavioral therapy

- Distress tolerance, emotional regulation, mindfulness

Motivational Interviewing

- Reflection, developing discrepancy, exploring ambivalence

Source: Rowe, Rizzo, Guthrie, Vail, Kang, Golden (2018)

Other social work contributions

- Framework for working with patients
  - Person in environment perspective
  - Cultural humility
  - Trauma-informed approach
  - Recognition of stages of change
- Engaging challenging patients in their care
  - Psychoeducation and motivational interviewing
- Reframing non-compliance
  - Getting to the root cause
- Advocating for patient perspective to care team
  - Ensuring patients' preferences, goals, and support needs are taken into account
- Building external partnerships
  - Strengthening networks of services and supports for patients

AIMS Retrospective Utilization Study

- AIMS patients served between March 2010 and February 2014 (n=640)
  - Age: 60 and older
  - Referral from one of 16 primary care provider clinics within the Rush network of doctors
- Utilization in following metrics at 6 months post-AIMS intervention (Triple Aim Arm: Lower Cost)
  - Hospital admission rates: Number of times
  - 30-day readmission rates: Number of times
  - Emergency department usage: Number of times
- Compared AIMS rates with Rush general and older adult general population rates
  - Based on EMR records, AIMS SW case notes, literature

Sample (N = 640)

Demographic Variable	Mean (SD) or Frequency %
Age	72.8 (8.6)
Female	399 (62.3%)
Male	241 (37.7%)
Race/Ethnicity	
White	255 (39.8%)
African American	238 (37.2%)
Hispanic	110 (17.2%)
Payer	
Medicare	374 (59.1%)
Commercial/Private	200 (31.3%)
Medicaid	30 (4.7%)
Duals	8 (1.3%
Cognitive Status	136 (21.2%)
Functional Status	
ADL Impairments	2.6 (3.1)
IADL Impairments	3.9 (3.0)

Findings – AIMS Participants, within 6 months of intervention (n = 640)

Item	#	Range	Mean
Hospital Admission	599	0 - 12	0.51
30-day Readmissions	581	0 - 7	0.15
ED Visits	599	0 - 5	0.10

The AIMS Model

The AIMS Model

Findings – Comparing AIMS Participants vs. similar Rush population

Admissions, 30-day readmissions, and ED visits were significantly lower in AIMS participants

Item	AIMS Mean	Rush Annual Mean (n=5,987)	Rush 6 month (Annual/2)
Hospital Admission	0.51	2	1.0*
30-day Readmissions	0.15	0.7	0.35*
ED Visits	0.10	1.9	0.95*

*Statistically significant using one-sample t-test

Findings – Comparing AIMS Participants vs. General older adult population

30-day readmissions and ED visits were significantly lower in AIMS participants than general older adults

Item	AIMS Mean	Older Adult Annual Mean	Older Adult 6 month (Annual/2)
Hospital Admission	0.51	.31 (National; AHRQ, 2011)	.16^{ns}
30-Day Readmissions	0.15	4.9 (Chicago; Brennan, 2012; Gerhardt et al., 2013)	2.45*
ED Visits	0.10	.51 (National; Albert, McCaig, & Ashman, 2013)	.26*

*Statistically significant using one-sample t-test

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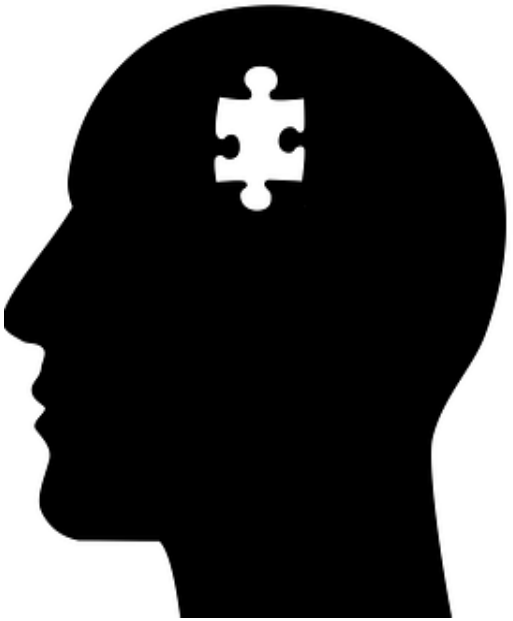
Translation

- Organizational cost savings translate into public cost savings
  - Fewer Medicare dollars
  - Fewer Medicaid dollars
  - Fewer health care provider dollars

- Triple Aim Arm: Lower Costs

AIMS Formative Evaluation Study

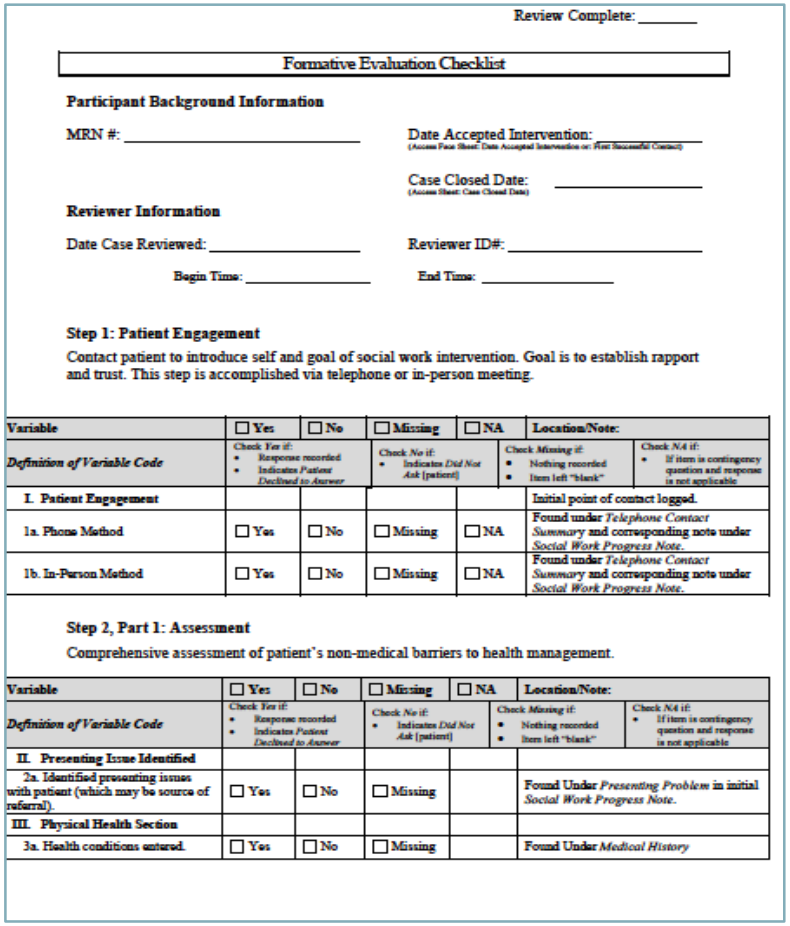
- 1 – year quasi experimental study to assess impact of AIMS
  - 50 years +
  - 3 > chronic health conditions
  - English speaking
  - Cognitively intact
  - Patient Health Behaviors
    - Depression
    - Health Risk
    - Other outcomes



The AIMS Model

Formative Evaluation

- Review of AIMS records to identify which elements of AIMS contribute to depression and health risk outcomes
  - Electronic health record



Review Complete: _____

Formative Evaluation Checklist

Participant Background Information

MRN #: _____ Date Accepted Intervention: _____
(Access Face Sheet: Date Accepted Intervention or: First Successful Contact)

Case Closed Date: _____
(Access Sheet: Case Closed Date)

Reviewer Information

Date Case Reviewed: _____ Reviewer ID#: _____

Begin Time: _____ End Time: _____

Step 1: Patient Engagement

Contact patient to introduce self and goal of social work intervention. Goal is to establish rapport and trust. This step is accomplished via telephone or in-person meeting.

Variable	☐ Yes	☐ No	☐ Missing	☐ NA	Location/Note:
Definition of Variable Code	Check *Yes* if: • Response recorded • Indicates *Patient Declined to Answer*		Check *No* if: • Indicates *Did Not Ask* [patient]	Check *Missing* if: • Nothing recorded • Item left "blank"	Check *NA* if: • If item is contingency question and response is not applicable
I. Patient Engagement					Initial point of contact logged.
1a. Phone Method	☐ Yes	☐ No	☐ Missing	☐ NA	Found under *Telephone Contact Summary* and corresponding note under *Social Work Progress Note*.
1b. In-Person Method	☐ Yes	☐ No	☐ Missing	☐ NA	Found under *Telephone Contact Summary* and corresponding note under *Social Work Progress Note*.

Step 2, Part 1: Assessment

Comprehensive assessment of patient's non-medical barriers to health management.

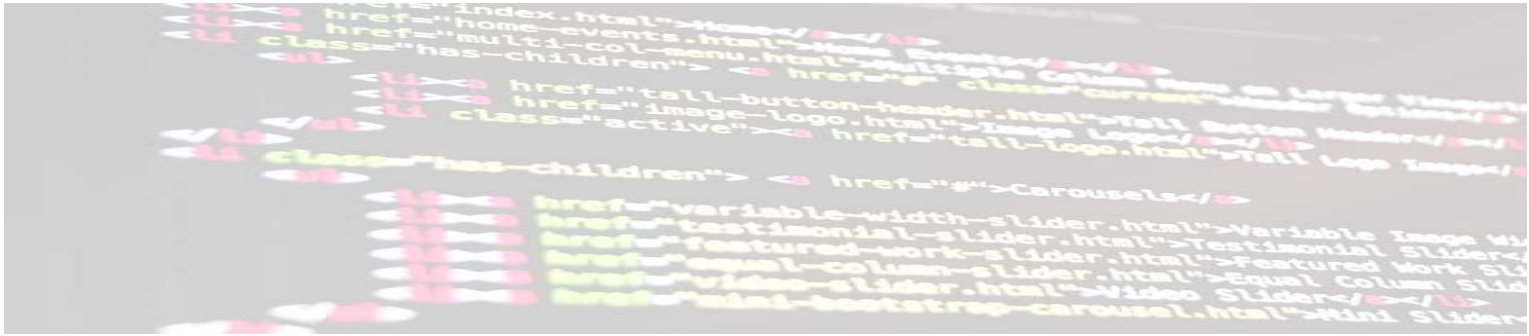
Variable	☐ Yes	☐ No	☐ Missing	☐ NA	Location/Note:
Definition of Variable Code	Check *Yes* if: • Response recorded • Indicates *Patient Declined to Answer*		Check *No* if: • Indicates *Did Not Ask* [patient]	Check *Missing* if: • Nothing recorded • Item left "blank"	Check *NA* if: • If item is contingency question and response is not applicable
II. Presenting Issue Identified					
2a. Identified presenting issues with patient (which may be source of referral).	☐ Yes	☐ No	☐ Missing		Found Under *Presenting Problem* in initial *Social Work Progress Note*.
III. Physical Health Section					
3a. Health conditions entered.	☐ Yes	☐ No	☐ Missing		Found Under *Medical History*

Sample – Intervention group, n=170

Demographic Variable	Mean (SD) or Frequency %
Age	63.5 (8.44)
Female	129 (75.9%)
Male	41 (24.1%)
Married	94 (65.3%)
College or Higher	96 (67.1%)
Unemployed	108 (75.5%)
Chronic Conditions (Range 3-35)	3.9 (1.31)
Depression (Range 0–30)	10.41 (7.03)

Analysis

- IV
  - AIMS – Units
- Change in DV baseline to 6-months
  - Logistic Regression
    - Health Risk
  - Linear Regression
    - Depression



Results – Descriptive Statistics
Depression

Depression	Baseline Mean, (SD)	6-Month Mean, (SD)
	10.41 (7.03)	9.58 (7.16)

Depression was measured using the CESD-R 10. Scores of 10 and above indicate clinical depression.

Results – Linear Regression Depression

	β (CI)	SE	p
Study Variables			
Socio-demographic variables			
Age	-.045 (-.22, .13)	.09	.61
Gender (1= male)	2.48 (-.96, 5.92)	1.71	.15
Income (higher, more)	-.38 (-.11, .35)	.36	.30
Education (1=college and higher)	-.79 (-3.91, 2.31)	1.55	.60
Employment status (1=employed)	-1.52 (-5.25, 2.20)	1.86	.41
Chronic Conditions (higher, more)	.48 (-.62, 1.59)	.55	.38
Previous depression (higher, severe)	.55 (.35, .74)	.10	<.001
Total service time (higher, more)	-.08 (-10.15, .02)	.37	.81
AIMS Services (higher, more)			
Step 1: Patient/Caregiver Engagement	-5.06 (-.23, -.02)	2.54	.05
Step 2: Assessment & Care Plan Development	-.13 (-.03, 4.52)	.05	.02
Step 3: Telephone on In-Person Care Coordination	2.24 (-.04, 8.35)	1.14	.05
Step 4: Goal Attainment	4.15 (-9.93, 12.71)	2.09	.05
Step 5: Ongoing Care	1.39 (-.83, .65)	5.65	.80
Constant	3.48 (-13.97, 20.94)	8.71	.69
R^2	.44		

Note: CI: 95% confidence interval; SE: standard error

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Results – Descriptive Statistics
Health Risk

Health Risk	Low n (%)		Medium n (%)		High n (%)	
	Baseline	Post	Baseline	Post	Baseline	Post
	59 (40.97)	85 (75.22)	42 (29.17)	0	43 (29.86)	28 (24.78)

Health risk was measured using the Health Risk Assessment, which was developed and tested by Rush University Medical Center to identify high risk patients in the medical home setting.

Results – Logistic Regression Health Risk

	OR (CI)	SE	p
Study Variables			
Socio-demographic variables			
Age	.97 (.89, 1.06)	.42	.54
Gender (0= male, 1 = female)	.08 (.01, .90)	.10	.04
Income (higher, more)	.76 (.49, 1.16)	.17	.21
Marital status (1=married)	.39 (.08, 1.79)	.30	.23
Chronic Conditions (higher, more)	1.88 (.96, 3.65)	.64	.06
Education (1=college and higher)	1.92 (.36, 9.24)	1.51	.46
Employment status (1=employed)	.61 (.07, 4.65)	.63	.63
Total service time (higher, more)	1.50 (1.00, 2.25)	.31	.04
AIMS Services (higher, more)			
Step 1: Patient/Caregiver Engagement	.81 (.05, 11.60)	1.10	.87
Step 2: Assessment & Care Plan Development	1.06 (1.00, 1.11)	.03	.03
Step 3: Telephone on In-Person Care Management	.26 (.07, .85)	.16	.03
Step 4: Goal Attainment	3.18 (.30, 32.92)	3.80	.33
Step 5: Ongoing Care	-		
Constant	.03(.001, 31.46)	.10	.32
Pseudo R square	.26*		

Note: OR: odds ratio; CI: 95% confidence interval; SE: standard error; ongoing care was omitted due to the limited number (n=7)

The AIMS Model

Discussion

- Components of AIMS have positive effect
- More units of AIMS
  - Patient Engagement (Step 1)
  - Case Management (Step 3)
    - Contribute to better outcomes
- Addressing social and psychosocial needs as part of primary care
  - May lead to better long term outcomes
  - Cost savings and quality measures

Looking ahead: Improving primary care

"Our study presents novel findings that identify specific primary care tasks that, **when performed by PCPs without reliance on their teams**, are associated with PCP burnout. Specifically, **intervening on patient lifestyle factors and educating patients about disease-specific self-care activities** were significantly associated with PCP burnout. These findings expand the current literature by providing evidence linking behavioral counseling and self-management education provided by PCPs with PCP burnout."

- *Kim et al, Primary Care Tasks Associated with Provider Burnout: Findings from a Veterans Health Administration Survey, Journal of General Internal Medicine, 2018*

"Experience from successful PMCH practices suggests that **additional staff with necessary expertise and training** will be required in order to achieve [PCMH] goals… We recommend increased staffing in the forms of **care managers, behavioral health/social workers, pharmacists, health educators, nutritionists, and data analysts**."

- *Patel et al, Estimating the Staffing Infrastructure for a Patient-Centered Medical Home, American Journal of Managed Care, 2013*

Discussion

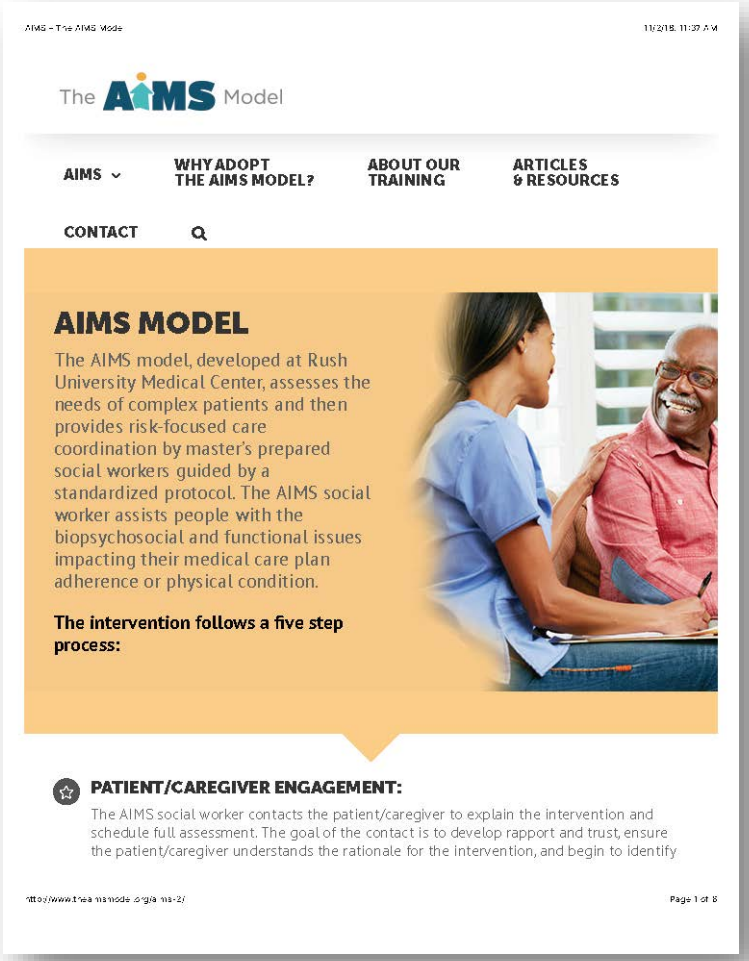
- Findings regarding value of AIMS
  - Used to support hiring of additional social workers to address patient needs in primary care
- Support for interprofessional teams
- Provide support for policy
  - Fee for service reimbursement
  - Value-based payment models

Helping integrate care across country

- Purple pins:
  - Community-based organizations trained in AIMS, using to partner with local provider groups
- Blue pins:
  - Landmark Health using AIMS in contracts with Medicare Advantage companies

The AIMS Model

Learn more: www.theaimsmodel.org



The AIMS Model

AIMS | WHY ADOPT THE AIMS MODEL? | ABOUT OUR TRAINING | ARTICLES & RESOURCES | CONTACT

AIMS MODEL

The AIMS model, developed at Rush University Medical Center, assesses the needs of complex patients and then provides risk-focused care coordination by master's prepared social workers guided by a standardized protocol. The AIMS social worker assists people with the biopsychosocial and functional issues impacting their medical care plan adherence or physical condition.

The intervention follows a five step process:

PATIENT/CAREGIVER ENGAGEMENT:

The AIMS social worker contacts the patient/caregiver to explain the intervention and schedule full assessment. The goal of the contact is to develop rapport and trust, ensure the patient/caregiver understands the rationale for the intervention, and begin to identify

The AIMS Model

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