

2017 NASW VIRTUAL CONFERENCE



**AGING**  
THROUGH THE  
SOCIAL WORK LENS

JUNE 14-15, 2017



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# **The Evolving Role of Social Work in Improving Older Adults' Health**

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## Interesting and Exciting Times

- **In an era of innovation and growth**
  - Medicare and Medicaid reforms prompting a move toward value-based care
  - Increasing focus on social determinants of health and interprofessionalism
  - Working toward a National Academies of Sciences, Engineering, and Medicine consensus study on integrating social needs care
- **Yet, uncertainty of healthcare reform and budget**
  - Many critical agencies and services are under-funded

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## Grand Challenges Ahead

**“More than 60 million Americans experience devastating one-two punches to their health— they have inadequate access to basic health care while also enduring the effects of discrimination, poverty, and dangerous environments that accelerate higher rates of illness.”**

- *Grand Challenges for Social Work*



## The Demographic Imperative

- **Increasing numbers of older adults – but systems largely not equipped to prevent, identify, and respond to relevant issues**
  - Communities not generally age friendly
  - 1 in 3 older adults falls a year, but only ½ tell their doctor
  - 1 in 4 older adults experiences a mental health issue or cognitive decline, but less than ½ get support they need
  - Substance use increasing in older adults
  - 1 in 2 at risk for malnutrition
  - Lack of long-term care system, reliance on unpaid and underpaid caregivers
  - Disinvestment in community-based supports, uncertainty of benefits and safety net supports

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## Healthy People 2020: Priorities for Improving Older Adult Health

- Person-centered care planning that includes caregivers
- Quality measures of care and monitoring of health conditions
- Fair pay and compensation standards for “formal and informal” caregivers
- Minimum levels of geriatrics training for health professionals
- Enhanced data on certain subpopulations of older adults, including aging LGBT populations

(Collins, 2011)  
(Healthy People 2020)

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**“Social determinants of health**  
have taken center stage in  
recent health policy discussions  
because of the growing focus on  
**global payment, accountable care**  
**organizations**, and other initiatives focusing on  
**improving population health.”**

-- Yale Global Health Leadership Institute

(Taylor, 2015)

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# Building on the “Triple Aim”

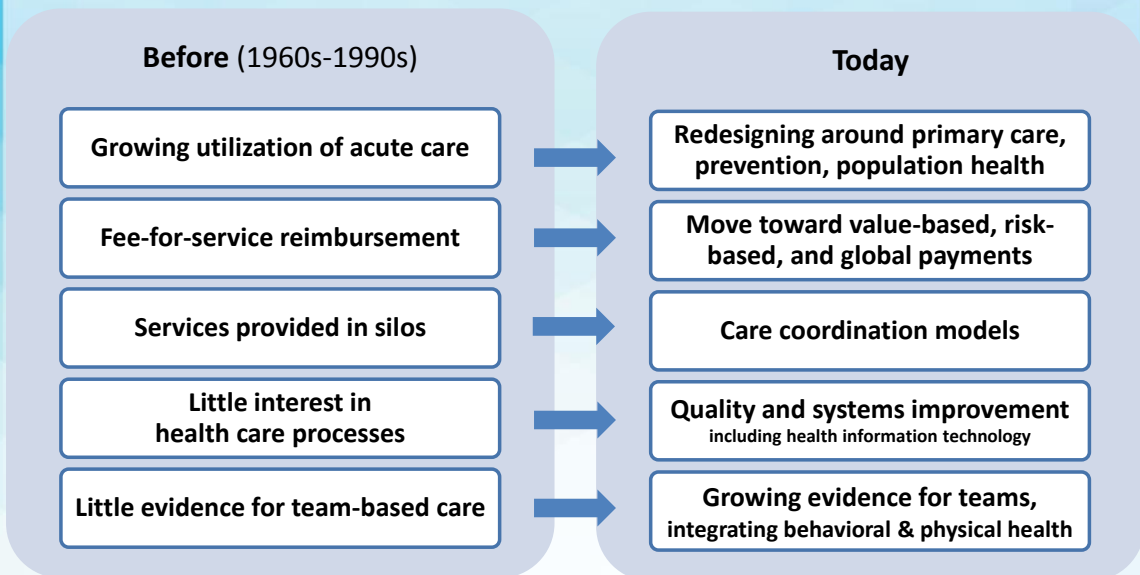


(Bodenheimer & Sinsky, 2014)



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# From Volume to Value



(Schmitt, 1994)  
(Andersen, 2011)  
(Brandt, 2016)

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# The Affordable Care Act, and beyond

## Medicare: a growing focus on value

**Medicare FFS codes** to bill for chronic care management, transitional care management, & behavioral health integration

**Pay for performance:** Reimbursement adjustment for quality outcomes (e.g., hospital readmissions, hospital-acquired conditions, value-based purchasing)

**Bundled payments** for an entire care episode and follow-up care (e.g., joint replacement)

**Risk-based Alternative Payment Models** (e.g., Accountable Care Organizations)

**Medicare Access and CHIP Reauthorization Act of 2015 (MACRA):** Part B payment reform, incentivizes Patient-Centered Medical Home practices

## Other federal efforts of note

**Accountable Health Communities:** testing out a **screening for health-related social needs** in Medicare and Medicaid beneficiaries at participating clinical sites

**Geriatrics Workforce Enhancement Programs:** HRSA-funded efforts for workforce development and practice change to be aging friendly

**IMPACT Act of 2014:** Enhanced SNF discharge planning requirements, improved data sharing between SNFs and home health

**CARE Act:** state legislation for hospitals to identify family caregiver, law in 20 states

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# **GROWING A MOVEMENT: SOCIAL WORKERS IN HEALTH CARE**

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## Healthcare Reform Brings Opportunities

“To be successful, Accountable Care Organizations will need competency in integrated, team-based care; solid connection to community partners; skills and knowledge in prevention and population-based care, particularly for populations experiencing health disparities; and expertise in chronic disease management.

**The social work profession, with expertise in all of these areas, is poised to be a vital component of these new provider organizations.”**

*- NASW Practice Perspectives*

(Collins, 2011)

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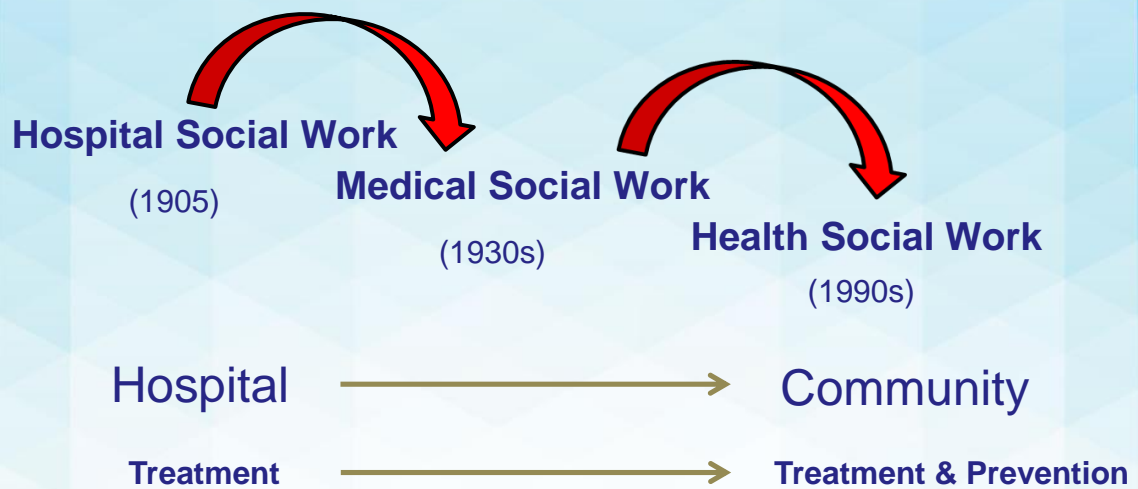
## Historical Perspective

*The social worker's major contributions to medical care, gauged by frequency of performance, are: (1) the securing of information to enable an adequate understanding of the general health problem of the patient; (2) interpretation of the patient's health problem to himself, his family and community welfare agencies; and (3) the mobilizing of measures for the relief of the patient and his associates.*

*-American Association of Hospital Social Workers, 1928  
Study of 1,000 client cases from 60 social work departments*

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## Change in Focus Over Time



(Slide adapted from Sarah Gehlert, PhD)

## 2017: Supporting Older Adult Health

### SW plays critical roles supporting older adult health:

- Assess patients' psychosocial and long-term services and supports needs
- Coordinate care
  - Navigate health care and social services, including benefit eligibility
  - Address gaps in care from insufficient time, staff, resources
- Provide psychotherapy
- Promote social connectivity
- Improve health literacy and patient engagement in their care
- Engage with and support families and caregivers
- Support advance care planning

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## Making A Case for Social Work

- **SW role and impact often undefined in terms that healthcare leaders value**
  - Hard to define art of relationship-based care, systems navigation
  - Need to standardize interventions and value services
- **Promising findings in 2014 systematic review**
  - 42 research studies in four categories: 1) *health care*, 2) *mental health*, 3) *Geriatric Evaluation and Management*, 3) *caregiving*
  - Studies identified significant SW impact on quality of life outcomes, smaller but increasing inclusion of ROI data
  - Authors: SWs continue defining role and studying how SW involvement leads to improved outcomes and experience

(Rizzo, 2014)



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## **Lack of Recognition by Healthcare Leaders**

- **Despite rich history of developing “art and science”, SW continues to lack provider and payer buy-in**
- **Examples from Medicare FFS – services SW cannot bill on own:**
  - Health Behavior Assessment and Intervention codes
  - Advance Care Planning
  - Caregiver Health Risk Assessment and Care Planning
  - Chronic Care Management
  - Behavioral Health Integration
  - Cognitive Impairment Assessment & Care Planning

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## National Efforts to Address Issue

- **Aging and Disability Business Institute**
  - Support community-based organizations in developing value/impact propositions for social services and enhance business acumen skills
- **Taskforce to Advance Evidence-based Practices in Social Work**
  - Taskforce aims to advance the training for and practice of evidence-based psychosocial interventions for mental health and substance use
- **Social Work in Health Care workgroup**
  - Brings together leaders in SW practice, education, research, and advocacy
    - Aims to better connect research and practice to elevate social work's role in health care
  - Working toward a National Academies consensus study on social work and social needs care
- **Eldercare Workforce Alliance**

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## A Call to Action

- **Proving the value of social work will take us all**
- **Evidence has significant impact on policy and investment**
  - E.g. reimbursement rates, licensure requirements, investments in new demonstration programs, philanthropic attention
  - NASW regularly cites evidence-based social work programs when advocating for increased Medicare reimbursement rates
- **Sharing your lessons-learned will help others be more successful in implementing as well**

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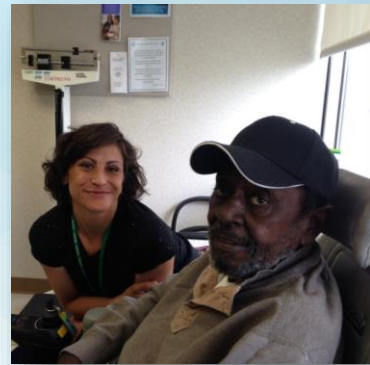
## Case Example: Rush Health & Aging

- **Rush University Medical Center**
  - Large urban hospital in Chicago
  - Diverse socioeconomic, cultural, racial and ethnic, and educational background of clients
- **Rush Health & Aging**
  - Social work services (care coordination and psychotherapy)
  - Health promotion and disease prevention
  - Multiple community service programs
  - Resource centers for clients, family, community members
  - Works toward broader systems change via program dissemination, provider education, and policy advocacy

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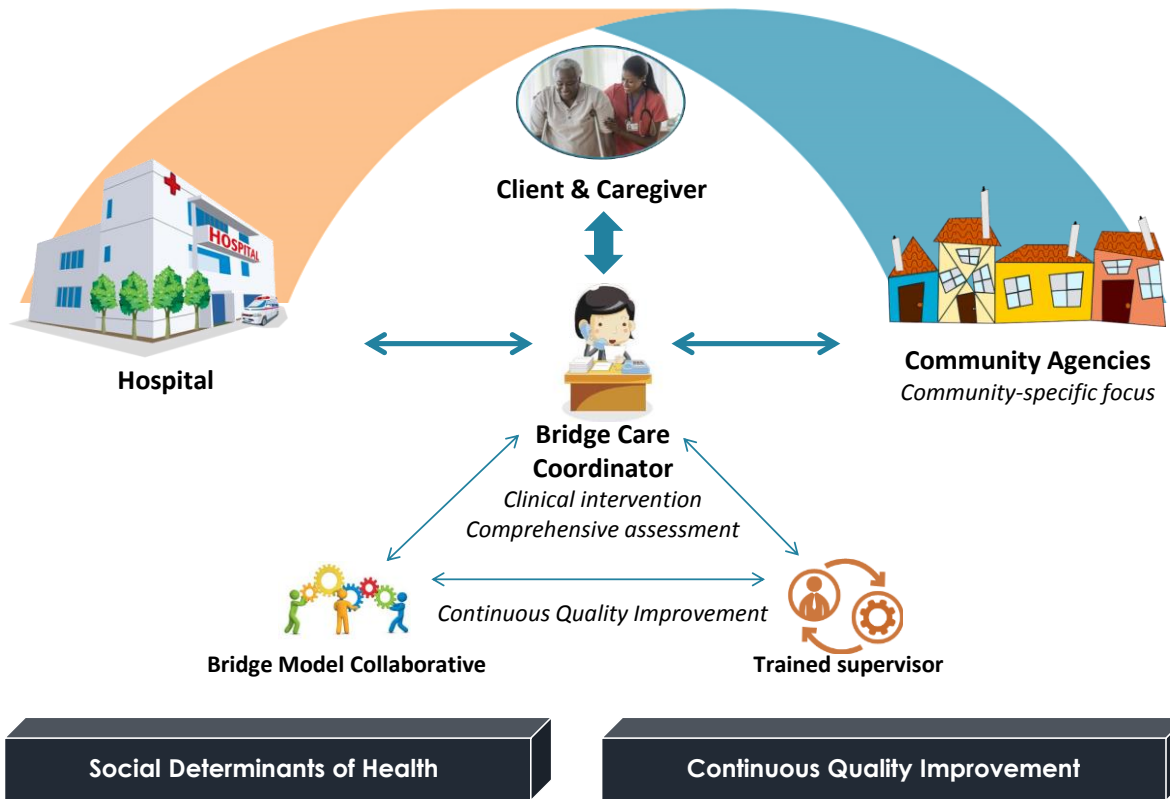
# Bridge: A Transitional Care Program

- **Developed with partners from across IL**
  - 50+ replication sites around country
  - Works with adults with complex medical or social needs
- **Pre-discharge**
  - Review electronic medical record for medical, social history
  - Interprofessional connections, led by social worker
  - Bedside visit
- **Post-discharge**
  - Repeated contacts for 30 days
  - Facilitate discharge plan, connections to CBOs
  - Coordinate home health, primary care, hospital providers
  - Patient engagement and activation



(Boutwell, et al., 2016)

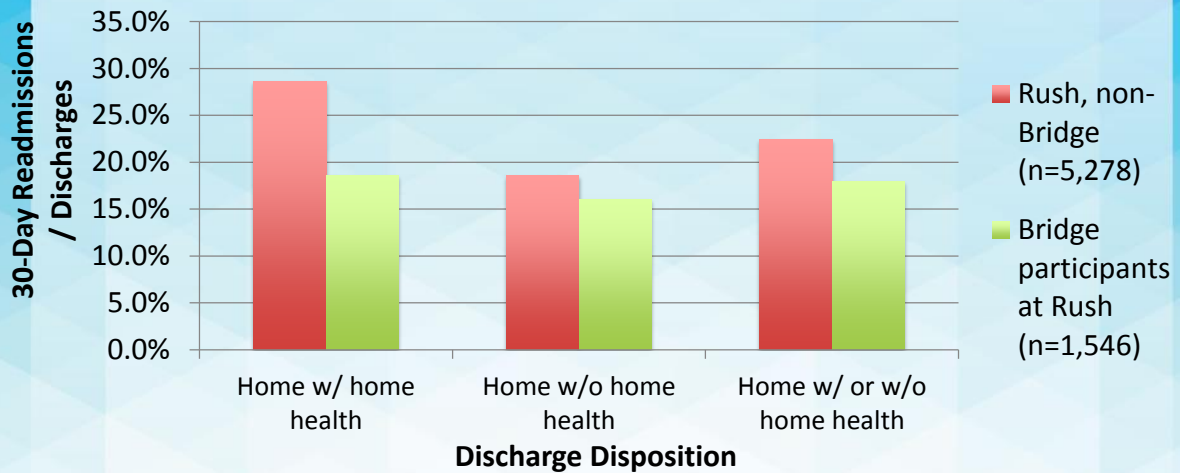
The  
**BridgeModel**  
[www.transitionalcare.org](http://www.transitionalcare.org)



[www.transitionalcare.org](http://www.transitionalcare.org)

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## JAGS: Bridge's Impact on Readmissions



**“Well suited to assess and address the transitional care needs of adults with complex medical, behavioral, and social needs”**

(Boutwell, et al., 2016)

[www.transitionalcare.org](http://www.transitionalcare.org)

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## Bridge Impact on “Super-utilizers”

- Pre-post pilot (N=456)
- June 1<sup>st</sup> 2014 – May 31<sup>st</sup> 2015

<u>Variable</u>	<u>Pre-Intervention</u> n or Mean % or ± SD n = 456	<u>Post-Intervention</u> n or Mean % or ± SD n = 456	<u>Significance</u> (paired t-test)
# of Admissions	<b>2.52 ± 1.79</b>	<b>1.25 ± 1.67</b>	<b>&lt;.001</b>
30-day Readmission Rate	<b>29.1% ± 34.3%</b>	<b>11.3% ± 24.0%</b>	<b>&lt;.001</b>
# of ED visits	<b>2.39 ± 2.64</b>	<b>1.52 ± 2.15</b>	<b>&lt;.001</b>
# of no-shows	<b>4.05 ± 5.35</b>	<b>3.25 ± 5.11</b>	<b>&lt;.001</b>

(Unpublished Rush analysis)

[www.transitionalcare.org](http://www.transitionalcare.org)



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## Bridge: Hospital-Community Partnerships

- **Bridge Model implemented by many community-based organizations (CBOs) in partnership with area hospitals**
  - 27 of 65 sites trained in Bridge are CBOs (mostly Aging Network)
- **Initiatives with healthcare sector significant opportunity for CBOs to innovate beyond traditional roles**
  - Contracts with hospitals and Medicaid MCOs
  - Contract with private SNF for the transition home after rehab
  - Some CBOs implementing mix of Bridge and other models (e.g. Eric Coleman's Care Transitions Intervention)
  - Statewide networks of CBOs contracting with payers to offer more consistency across region/state

(Care Transitions Intervention)

[www.transitionalcare.org](http://www.transitionalcare.org)

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## AIMS: An Outpatient Intervention

- **“Ambulatory Integration of the Medical and Social”**
- **Team of Master’s level clinical social workers**
  - Based out of primary and specialty care settings
  - Five-step guided protocol; telephonic with in-person components
- **Wraps around medical care by addressing psychosocial needs**
- **Replicated at community-based sites in IL and MD**

(Rowe, et al., 2016)

The **AIMS** Model  
[www.theaimsmodel.org](http://www.theaimsmodel.org)

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## AIMS: Enhancing Primary Care

- Increases clinician and team awareness of psychosocial issues and person-in-environment perspective
- Increases practice efficiency by best utilizing skills of each discipline
- Enhances provider satisfaction
- Connects patients to evidence-based disease management
- Integrates evidence-based social work core competencies, and patient-identified goals and care preferences

[www.theaimsmodel.org](http://www.theaimsmodel.org)

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## AIMS: Promising Findings

- Compared utilization for AIMS participants vs. similar Rush population
  - Admissions, 30-day readmissions, and ED visits were significantly lower in AIMS participants in 6 month period

Utilization Metric	AIMS Mean (n=640)	Rush Comparison (n=5,987)
Hospital Admission	0.51*	1.0
30-day Readmissions	0.15*	0.35
ED Visits	0.10*	0.95

*\*Statistically significant using one-sample t-test*

- Currently doing 2-year quasi-experimental study with Commonwealth Fund support to look at impact on utilization (results expected 2018)

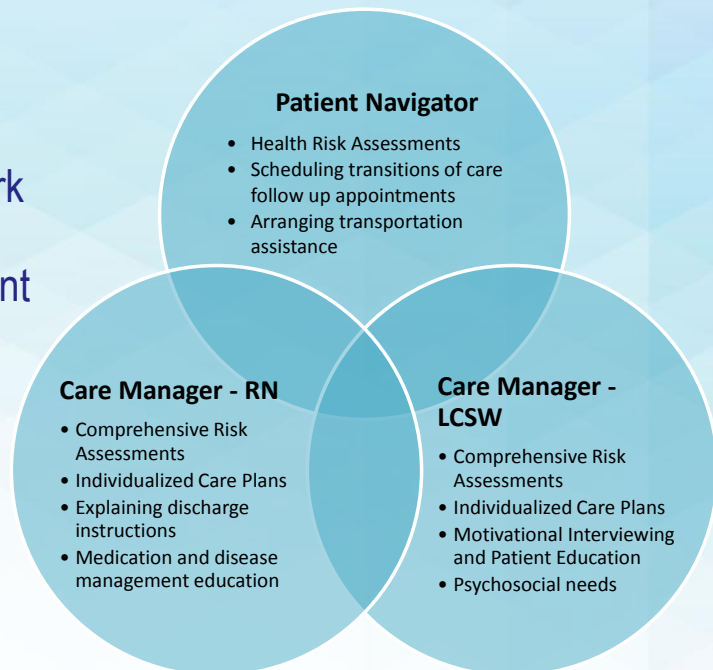
(Rowe, et al., 2016)

[www.theaimsmodel.org](http://www.theaimsmodel.org)

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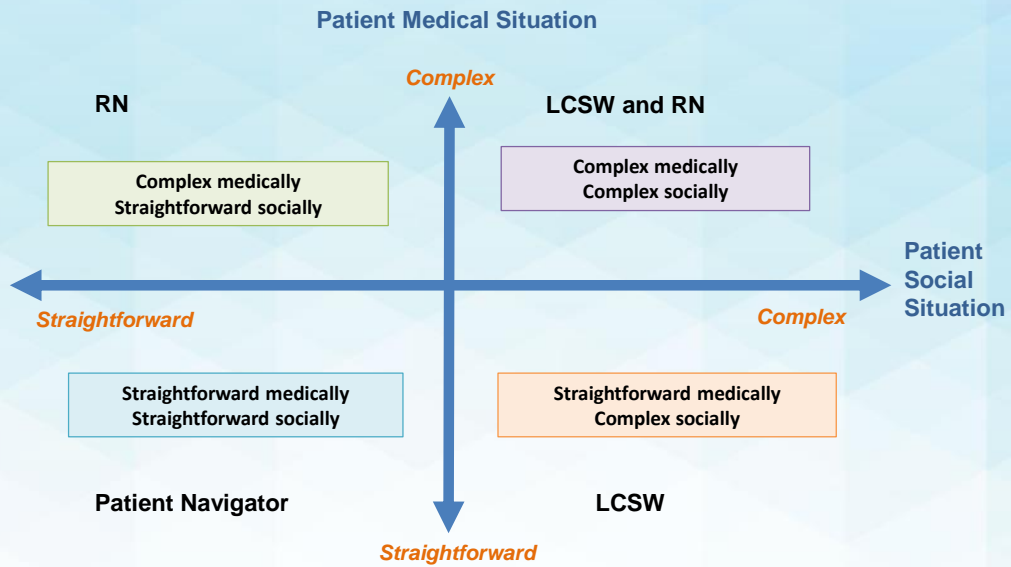
## Testing Out A Triad Approach

- Build on experience with SW-led models with a Medicaid managed care network in Chicago
- SW, RN, and/or Patient Navigator takes lead based on client need



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*Should RN, LCSW, or Patient Navigator be the lead care manager for a given patient?*



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## Continuing The Growth at Rush

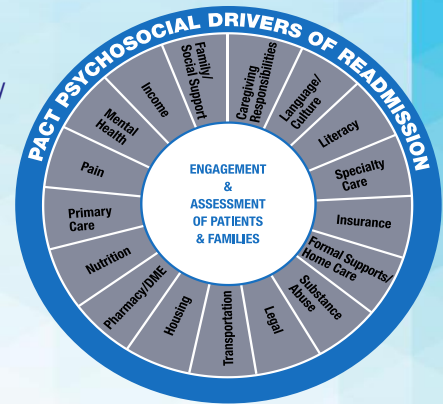
- **Expanding our services**
  - Psychotherapy group for family caregivers
  - Identifying ways to integrate SW clinical services into health workshops
  - Working more with RNs
  - NCOA network development for CDSMP and falls prevention programming
- **Systems change**
  - Developing a Center for Health and Social Care Integration to advance and advocate for practice change
  - Enhancing aging services at Rush through Center for Excellence in Aging



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## Other Significant SW Efforts to Watch

- **Mt. Sinai, NY**
  - Preventable Admissions Care Team (PACT)
    - 4-week SW intervention pre- and post-discharge to identify and address issues driving readmissions
    - 40% reduction in admissions and a 40% reduction in ED visits (across 7829 patients), increased PCP follow-up
  - Mobile Acute Care Team (MACT)
    - Interprofessional team providing home-based acute care and follow-up supports
- **Veterans Health Administration**
  - >12k MSWs employed, wide range of roles and settings
    - VA Care Management Program
    - SW as part of Patient Aligned Care Team (a different PACT)
  - SW plays leadership role in linking VA care with non-VA hospitals and services



(Basso Lipani, et al, 2015)  
(Koget, 2016)



## Other Trends in Social Care

- **Payer-driven care coordination**
- **Various technology platforms**
- **Housing-based services and care coordination**
  - Independent living facilities – HUD Supportive Services Demonstration
  - House calls program in Maryland partnering with AIMS site
- **Hotspotting to identify priority areas to target interventions**
  - Builds on Camden Coalition approach
  - Rush using this technique to target falls prevention efforts

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# **THE FUTURE OF SOCIAL WORK IN HEALTH CARE**

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## Positioning Ourselves for the Future

“Communication skills, knowledge of the community's resources, the ability to network to learn about resources that clients need is as crucial as the ability to evaluate the outcomes of their work...

A leader in the field of aging should also be able to work with organizations, community advocates, and policy makers to develop new services to meet with the changing needs of older adults.”

– *Dr. Martha Jacobs, Dominican University*

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## Getting to the Table

### What can SW providers, educators, advocates do?

- Find ways to collaborate across institutions and disciplines
  - From building coalitions, to incorporating insight from others in program design, to integrating other professions in interventions
- Learn to communicate and market social work
  - Frame social work from other perspectives
  - Align messaging to fit the mission of the team
- Contribute to evidence base of profession

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## Keep in Mind... Practice Change is Hard!

- **Getting to table a challenge**
  - Health systems and payers often opting to “build” services vs. “buying” from trusted CBOs
- **Interventions often require change across multiple care processes**
  - Need supportive workplace culture, clinical skills, resources, local environment
  - How to identify your impact amidst changing targets and continuous quality improvement?
- **Need a clear goal**
  - Utilization (e.g., reduced readmissions), ROI, quality of life? How to measure and access data?
- **Sustaining and growing interventions**
  - Payers and leadership often focus on adoption, not on sustainability
  - Prospective sites often want local impact data, especially if they’re contributing funds or data

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## Continuing the Momentum: What will it take?

- Strengthen value proposition of social work workforce
  - Further innovations in care models and in targeting care
  - Advocacy for increased reimbursement for social work services
- Improved interprofessional education and training to make healthcare settings more effective and efficient
- Research to better understand what contributes to health outcomes to enhance prevention
- Maintain consumer protections & coverage from ACA, with focus on closing health gaps



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“To reduce health inequities among older adults, we need to create supportive institutions and laws that create healthy environments for older adults, and make the healthy choice the easy choice for health behaviors... **Diverse elders will be emotionally and physically healthier when they and their families make a living wage, have decent and affordable housing, and reside in safe and health-promoting neighborhoods in a society that values diversity.**”

-- *Steven P. Wallace, Ph.D, UCLA Fielding School of Public Health*

(Wallace, 2015)

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# Questions and Discussion

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Please contact me with any follow-up questions or if interested in partnering!

**"Never doubt that a small group of committed people can change the world. Indeed, it is the only thing that ever has."**

**— Margaret Mead, cultural anthropologist**



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## References

- American Public Health Association. (2010). The hidden health costs of transportation. [http://www.apha.org/NR/rdonlyres/A8FAB489-BE92-4F37-BD50-5954935D55C9/0/APHAHiddenHealthCosts\\_Long.pdf](http://www.apha.org/NR/rdonlyres/A8FAB489-BE92-4F37-BD50-5954935D55C9/0/APHAHiddenHealthCosts_Long.pdf).
- American Academy of Social Work & Social Welfare. Grand Challenges for Social Work: Close the health gap. Retrieved 11/30/16 from <http://aaswsw.org/grand-challenges-initiative/12-challenges/close-the-health-gap/>.
- Basso Lipani, M., Holster, K., & Bussey, S. (2015). The Preventable Admissions Care Team (PACT): A Social Work–Led Model of Transitional Care. *Social work in health care*, 54(9), 810-827.
- Bodenheimer, T., & Sinsky, C. (2014). From triple to quadruple aim: care of the patient requires care of the provider. *The Annals of Family Medicine*, 12(6), 573-576.
- Boulton, C., Green, A. F., Boulton, L. B., Pacala, J. T., Snyder, C., and Leff, B. (2009). Successful Models of Comprehensive Care for Older Adults with Chronic Conditions: Evidence for the Institute of Medicine's "Retrofitting for an Aging America" Report. *Journal of the American Geriatrics Society*, 57: 2328–2337. doi:10.1111/j.1532-5415.2009.02571.x
- Boutwell, A., Johnson, M., Watkins, R. (2016). Analysis of a Social Work–Based Model of Transitional Care to Reduce Hospital Readmissions: Preliminary Data. *Journal of the American Geriatrics Society*.
- Bradley, E., & Taylor, L. (2013). The American health care paradox: Why spending more is getting us less. *PublicAffairs*.
- Brandt, B. (2016). Memo to Social Work: It's About Collaboration and The Redesign. Council on Social Work Education Annual Meeting. Retrieved from <https://hexusipe-resource-exchange.s3.amazonaws.com/CSWPE%2011.3.19%20Brandt%20Memo%20to%20Social%20Work.pdf>
- Centers for Disease Control and Prevention. CDC health disparities and inequalities report – U.S. 2011. Atlanta, GA: U.S. Department of Health and Human Services
- Care Transitions Intervention, <http://caretransitions.org/>
- Collins, S. (2011). *Healthy People 2020: Social work values in a public health roadmap* [NASW Practice Perspectives]. Retrieved from [http://www.socialworkers.org/practice/practice\\_tools/healthy\\_people\\_2020.asp](http://www.socialworkers.org/practice/practice_tools/healthy_people_2020.asp)
- Collins, S. (2011). *Accountable Care Organizations (ACOs): Opportunities for the social work profession* [NASW Practice Perspectives]. Retrieved from [http://www.socialworkers.org/practice/practice\\_tools/accountable\\_care\\_organizations.asp](http://www.socialworkers.org/practice/practice_tools/accountable_care_organizations.asp)
- Collins, S. (2011). *The medical home model: What is it and how do social workers fit in?* [NASW Practice Perspectives]. Retrieved from [http://www.socialworkers.org/practice/practice\\_tools/the\\_medical\\_home\\_model.asp](http://www.socialworkers.org/practice/practice_tools/the_medical_home_model.asp)
- Collins, S. (2013). *Strategies for strengthening health care social work in the health reform era* [NASW Practice Perspectives]. Retrieved from [http://www.socialworkers.org/practice/practice\\_tools/strategies\\_for\\_health\\_care\\_social\\_work.asp](http://www.socialworkers.org/practice/practice_tools/strategies_for_health_care_social_work.asp)
- DiMatteo, M. R. (2004). Social support and patient adherence to medical treatment: a meta-analysis. *Health psychology*, 23(2), 207.
- Edvardsson, D., & Nay, R. (2010). Acute Care and Older People: Challenges and Ways Forward. *Australian Journal of Advanced Nursing*, 27(2).
- Fenton, Robert Wood Johnson Foundation. (2011). Health Care's Blind Side: The Overlooked Connection between Social Needs and Good Health- Summary of Findings from a Survey of America's Physicians.
- Fiscella, K. & Epstein, R.M. (2008). So much to do, so little time: Care for the socially disadvantaged and the 15-minute visit. *Archives of Internal Medicine*, 168 (17) 1843-1852.
- Gallant, M. P. (2003). The influence of social support on chronic illness self-management: a review and directions for research. *Health Education & Behavior*, 30(2), 170-195.
- Healthy People 2020 - Older Adults. Office of Disease Prevention and Health Promotion. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/older-adults>.
- Kogut, J. (2016). Department of Veterans Affairs Social Work Services Overview. Presentation on 11/10/2016 at the National Academies of Sciences, Engineering, and Medicine.
- Krieger, J. Higgins DL. Housing and health: time again for public health action. *Am J Public Health*. 2002;92(5):758-68
- Robert Wood Johnson Foundation. (2008). Overcoming obstacles to health care. [www.commissiononhealth.org/PDF/ObstaclesToHealth-Highlights.pdf](http://www.commissiononhealth.org/PDF/ObstaclesToHealth-Highlights.pdf)
- Rowe, J. Rizzo, V., et al. The Ambulatory Integration of the Medical and Social (AIMS) Model: A retrospective evaluation. *Social Work in Health Care*.
- Shi L, Singh D. *The Nation's Health*. 8th ed. Sudbury, MA: Jones and Bartlett Learning, LLC; 2011.
- Taylor, L., Coyle, C., Ndumele, C., Rogan, et al. (2015). Yale Global Health Leadership Institute. Leveraging the Social Determinants of Health: What Works? Retrieved from: [http://bluecrossfoundation.org/sites/default/files/download/publication/Social\\_Equity\\_Report\\_Final.pdf](http://bluecrossfoundation.org/sites/default/files/download/publication/Social_Equity_Report_Final.pdf)
- The Commonwealth Fund (2015). The Affordable Care Act's Payment and Delivery System Reforms: A Progress Report at Five Years. Retrieved from <http://www.commonwealthfund.org/publications/issue-briefs/2015/may/aca-payment-and-delivery-system-reforms-at-5-years>
- Rizzo, V. and Rowe, J. Cost-Effectiveness of Social Work Services in Aging. *Research on Social Work Practice*, Vol 26, Issue 6, pp. 653 – 667, First published date: December-30-2014, 10.1177/1049731514563578
- Wagner, E., Austin, B. T., & Von Korff, F. M. Organizing care for patients with chronic illness. *Milbank Quarterly*, 1996, 74, 511–544.
- Wallace, D. (2015). Equity and Social Determinants of Health Among Older Adults. *Generations Journal of the American Society on Aging*. Retrieved from <http://www.asaging.org/blog/equity-and-social-determinants-health-among-older-adults>
- Woolf, S. H., et al. *The Urban Institute*. (2015). How are Income and Wealth Linked to Health and Longevity? Retrieved from <http://www.urban.org/sites/default/files/afresco/publication-pdfs/2000178-How-are-Income-and-Wealth-Linked-to-Health-and-Longevity.pdf>
- World Health Organization. (2003). *Social Determinants of Health: The Solid Facts* (2nd Edition). Europe, World Health Organization and edited by Richard Wilkinson and Michael Marmot.