



Multiple Sclerosis At Home Access (MAHA): Care Into Community

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Disclosures

- ▶ Speaker unbranded content
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MS With Severe Disability

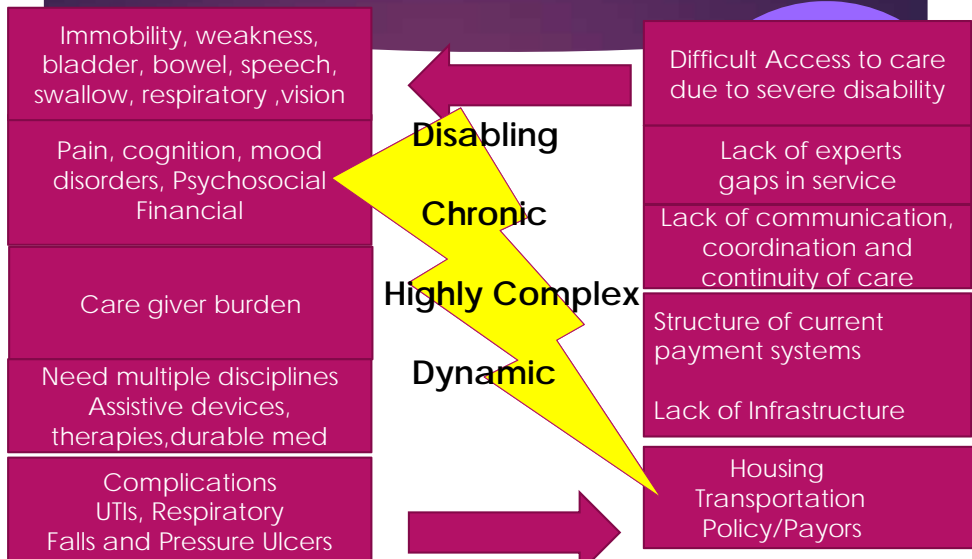
- ▶ Highly complex, chronic, dynamic, disabling
- ▶ Increasing numbers related to aging/duration of disease ^{1,2}
- ▶ Individuals and families face enormous challenges in accessing, coordinating, managing and financing care³
- ▶ Frequent complications and hospitalizations
- ▶ 2nd most costly disease per individual, higher cost with increasing disability ^{4,5,6}

1. Confavreux C, Rev Prat. 2006;56(12):1313-1320.
 2. Tutuncu M, Mult Scler. 2013;19(2):188-198.
 3. National Multiple Sclerosis Society. Strategic response white paper
 4. Adelman G. J Med Econ. 2013;16:639-647.
 5. Kobelt G, J Neurol Neurosurg Psychiatry. 2006;77(8)
 6. Nacl H, Pharmacoeconomics. 2010;28(5)

The Sonya Slifka Longitudinal Multiple Sclerosis Study (N=2000)

	N	%
Requires cane to walk 25 feet	308	14.3
Requires bilateral support to walk 25 feet	123	6.8
Requires wheelchair or scooter	270	15.1
Bedridden	7	0.4
Total	708	36%

Problems, Needs and Critical Barriers



Care Into Community- MS AT HOME ACCESS MAHA



- ▶ The term MAHA is derived from its city of origin Omaha, Nebraska, which was settled by Native Americans of the Omaha tribe.
- ▶ In their language, Omaha means:
"against the wind, against the current"
- ▶ Fall 2013.... first patient March 2014

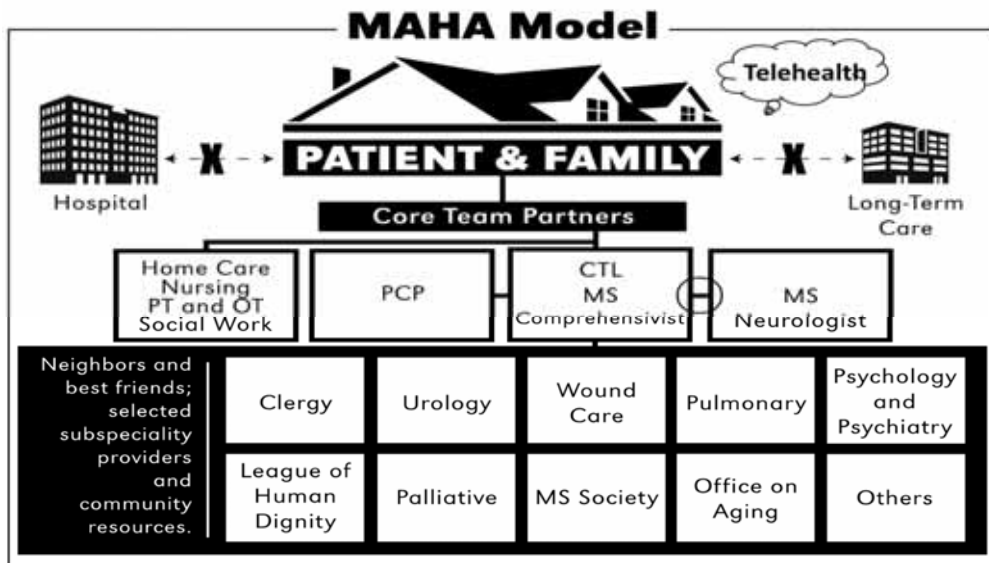
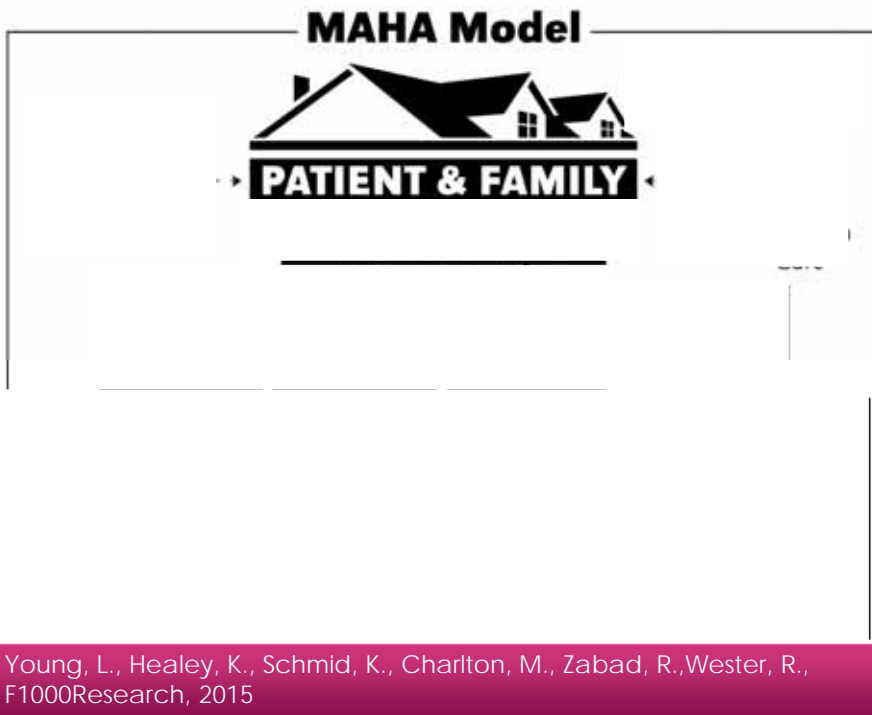


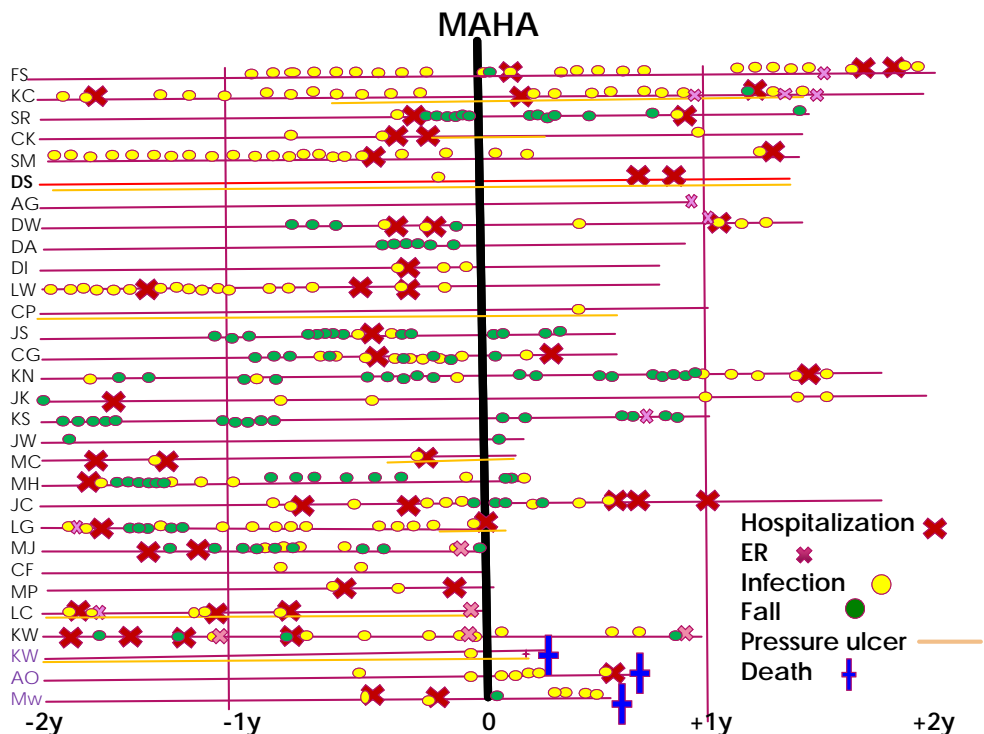
Figure 2. MAHA Model

Young, L., Healey, K., Schmid, K., Charlton, M., Zabad, R.,Wester, R.,
 F1000Research, 2015

Elements Guiding Care Process : The 10 C's

- Cooperation
- Credibility and consistency
- Competency
- Coordination
- Continuity
- Communication
- Caring and compassion
- Continuous quality improvement
- Comprehensive
- Cost aware

Young, L., Healey, K., Schmid, K., Charlton, M., Zabab, R., Wester, R., F1000Research, 2015



Reasons for Hospitalization or ER

Reasons for hospitalizations or ER visits

26%	UTI	8%	Falls, injury
23%	Respiratory	8%	Relapse
13%	Skin decub/cellulitis	5%	Elective
16%	Other suicide attempt , Stroke, bells palsy, pain		

70% potentially avoidable

Characteristics of Patients

	Number	%
MS EDSS ≥ 7.5	30	
• EDSS 7.5	6	20%
• EDSS 8	10	33%
• EDSS 8.5	7	23%
• EDSS 9	7	23%
• EDSS 9.5	0	
• EDSS 10	0	***
Gender F/M	23/7	77%/23%
Age 35-54/ ≥ 55	12/18	40%/60%
Living Situation		
With others	20	67%
Alone	8	27%
Facility	2	6%
Race		
Caucasian	28	94%
African-American	2	6%

Other Characteristics of Patients

Other	Number	%
Indwelling catheters	11/30	37%
G tubes	5/30	17%
Respiratory	4/30	13%
Power chairs	20/30	67%
Pressure Ulcers	6/30	20%
Disease Modulators	20/30	67%
Advanced Directives	3/30	10%

Insurance Coverage

Insurance	Number	%
Medicare /commercial	10/30	33%
Medicare/full Medicaid	10/30	33%
Medicare /share of cost	10/30	33%

Hospitalizations

		Number	%	LOS	Average LOS
-1 y	Number of individuals hospitalized	13/29	45%	106	106/13=8.0 days (US average 9.0) 106/29=3.7 days
+1 y	Number of individuals hospitalized	5/11	45%	16	16/5=3.2 days 16/11=1.5 days

**Difference is 2.2 days x 4000.00\$ hospital day= 8,800.00
x**

500 patients = \$ 4,400,000.00 estimated costs avoided

Bhargava P, 65th Annual Meeting of the American Academy of Neurology; March 16-23, 2013; San Diego, California. Abstract PO3-203.

Skilled Nursing Days

		Number	%	LOS	Average LOS
-1 y	Number of individuals with skilled nursing stays	10/29	34%	439	44 days 439/10=44 days 15 days 439/29=15 days
+1y	Number of individuals skilled nursing	0/11	0%	0	0

**Difference is 15 days x 500.00\$ skilled day= 7,500.00
x**

500 patients = \$ 3,750,000.00 estimated costs avoided

Total Annual Estimated Savings in Reducing Hospitalizations, Skilled Facility

N	Hospital	Skilled	Total
500	4,400,000.00	3,750,000.00	8,150,000.00

Estimates for US population

If we would generalize these savings to U.S. could potentially save more than 1 billion dollars in reduction of hospital days and skilled nursing facility costs on annual basis

80,000 (conservative estimate 20% MS population) x 16,300\$ (annual savings in reduced hospital and skilled facilities = 1,304,000,000

Patient Satisfaction

10 of 12 surveys returned

	Excellent 10/12	Good	Fair	Poor
Quality of service	10/12			
Meet needs	Almost all 10/12	Most	Few	None
Help you deal with your problems	Yes helped great deal 9/12	Yes somewhat 3/12	No	No made worse

"It was a "Godsend" they helped us so much"

"It helps tremendously, I don't have to worry so much, I've recommended it to others"

"They get it done, it's amazing I have the equipment I need now to be more independent"

"they helped me get financial assistance"



Conclusion

- ▶ More issues than expected
- ▶ Trends in decreased complications
- ▶ Trends in decreased hospital and skilled nursing facility days
- ▶ Very high patient and care giver satisfaction
- ▶ Support for continuing program and further study is warranted



Future Directives

- ▶ Continue to raise awareness of problem
- ▶ Increase volume and continue to develop infrastructure, expand tele-visits
- ▶ Train providers
- ▶ Obtain additional data on incidence and outcomes in state (Medicare)

MAHA TEAM

Thank you
MS Foundation
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clinical work

- Neurologist: Rana Zabad MD, Director MS Clinic
- Social Worker: Nicole Ridder
- Nurse practitioner "Comprehensivist": Kathleen Healey NP
- Physical therapist: Tammy Roehrs PT
- Primary care physician: Rebecca Wester MD

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