

Using quality improvement as a tool to reduce health disparities

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Pfizer Health Literacy Initiative

RWJ Clinical Scholars Program

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Organized Care May Reduce Literacy-related Health Disparities

- People with low literacy skills are at risk for adverse health outcomes^{1,2}
- Usual environment is sub-optimally organized to deliver high-quality care
- Better “resourced” patients can better overcome the barriers in usual care
- Appropriate interventions may reduce literacy-related health disparities^{3,4}

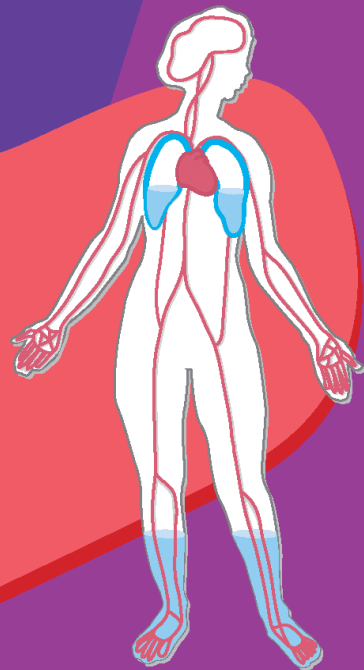
1. DeWalt JGIM 2004;19:1228 2. Pignone JGIM 2005; 20:185
3. Dewalt BMC HSR 2006;6:30 4. Rothman JAMA 2004;292:1711

MANAGING YOUR HEALTH WITH HEART FAILURE

1

2

3



UNC School of Medicine and Department of Pharmacy (Working Group on Health Risk Communication) 919-843-6480

Heart Failure (HF) Epidemiology

- 4.8 million people in US have HF
- Leading cause of hospitalization among elderly
- Of those hospitalized, 25% to 50% are readmitted within 3-6 months
- Half of HF admissions are preventable
- Good self-care required for effective management
- 13% of Medicare enrollees, 37% of Medicare expenditures

Information Recommended by Guidelines

- General topics
- Explanation of heart failure
- Expected symptoms vs symptoms of worsening heart failure
- Psychological responses
- Self-monitoring with daily weights
- Action plan in case of increased symptoms
- Prognosis
- Advanced directives
- Dietary recommendations
- Sodium restriction
- Fluid restriction
- Alcohol restriction
- Compliance strategies
- Activity and exercise
- Work and leisure activities
- Exercise program
- Sexual activity
- Compliance strategies
- Medications
- Nature of each drug and dosing and side effects
- Coping with a complicated regimen
- Compliance strategies
- Cost issues

Congestive Heart Failure

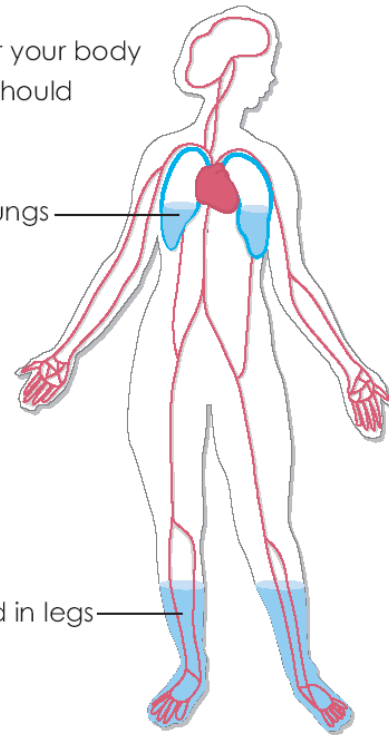
With congestive heart failure, the heart cannot pump the blood well. As a result, blood doesn't flow well.

Fluid leaks out of your blood vessels and backs up in the lungs and the legs.



Salt makes it harder for your body to get rid of fluid. You should avoid salt.

Fluid in lungs



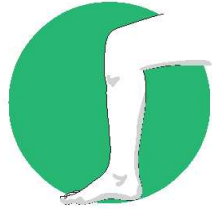
Fluid in legs

How Bad Is Your Congestive Heart Failure?

You can tell how well your heart is doing by how you feel and what you can do.

SWELLING

Good - No Swelling



OK - Swelling in Ankle or Shin



Bad - Swelling in Knee Area



Call the UNC Clinic / 919-843-6480 ☎

WALKING

Good - You can walk easily with no shortness of breath



OK - Shortness of breath when walking fast



Bad - Short of breath at rest



Call the UNC Clinic / 919-843-6480 ☎

SLEEPING

Good - Sleeping flat, no shortness of breath



OK - Needing 2 pillows or more to avoid shortness of breath



Bad - Have to sleep upright to avoid shortness of breath



Call the UNC Clinic / 919-843-6480 ☎³

If you weigh How many fluid pills?

178	☎ UNC Clinic 919-843-6480	
177	☀	☾
176		
175	2	2
174		
173	Good Weight →	
172		
171		
170		
169	1	1
168		
167		
166		
165		
164	1	0
163		
162	☎ 919-843-6480	

	1 Swelling	2 Weight	3 Number of Fluid Pills	
Sunday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input checked="" type="radio"/> none	☀ Morning 172	☀ Morning	☾ Evening
Date			1	1
Monday	<input type="radio"/> knee <input type="radio"/> shin <input checked="" type="radio"/> ankle <input type="radio"/> none	☀ Morning 174	☀ Morning	☾ Evening
Date			2	2
Tuesday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input checked="" type="radio"/> none	☀ Morning 171	☀ Morning	☾ Evening
Date			1	1
Wednesday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	☀ Morning	☀ Morning	☾ Evening
Date				
Thursday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	☀ Morning	☀ Morning	☾ Evening
Date				
Friday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	☀ Morning	☀ Morning	☾ Evening
Date				
Saturday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	☀ Morning	☀ Morning	☾ Evening
Date				

Our Intervention Reduced Hospital Admission or Death Incidence Rate in a Randomized Trial

Adjusted IRR – all participants:
0.56 [0.32, 0.95]

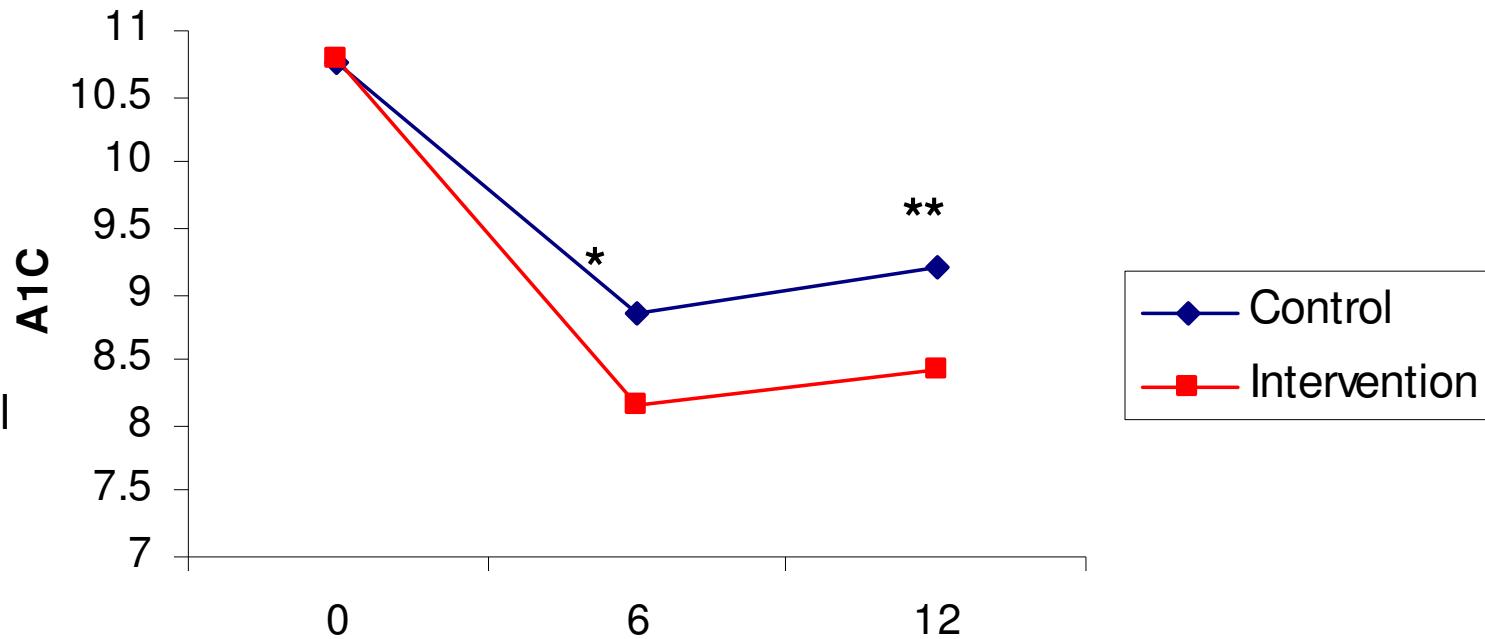
Adjusted IRR – low literacy participants:
0.38 [0.16, 0.88]

Similar Pattern in Diabetes Overall Results:

Worse
Control

A1C

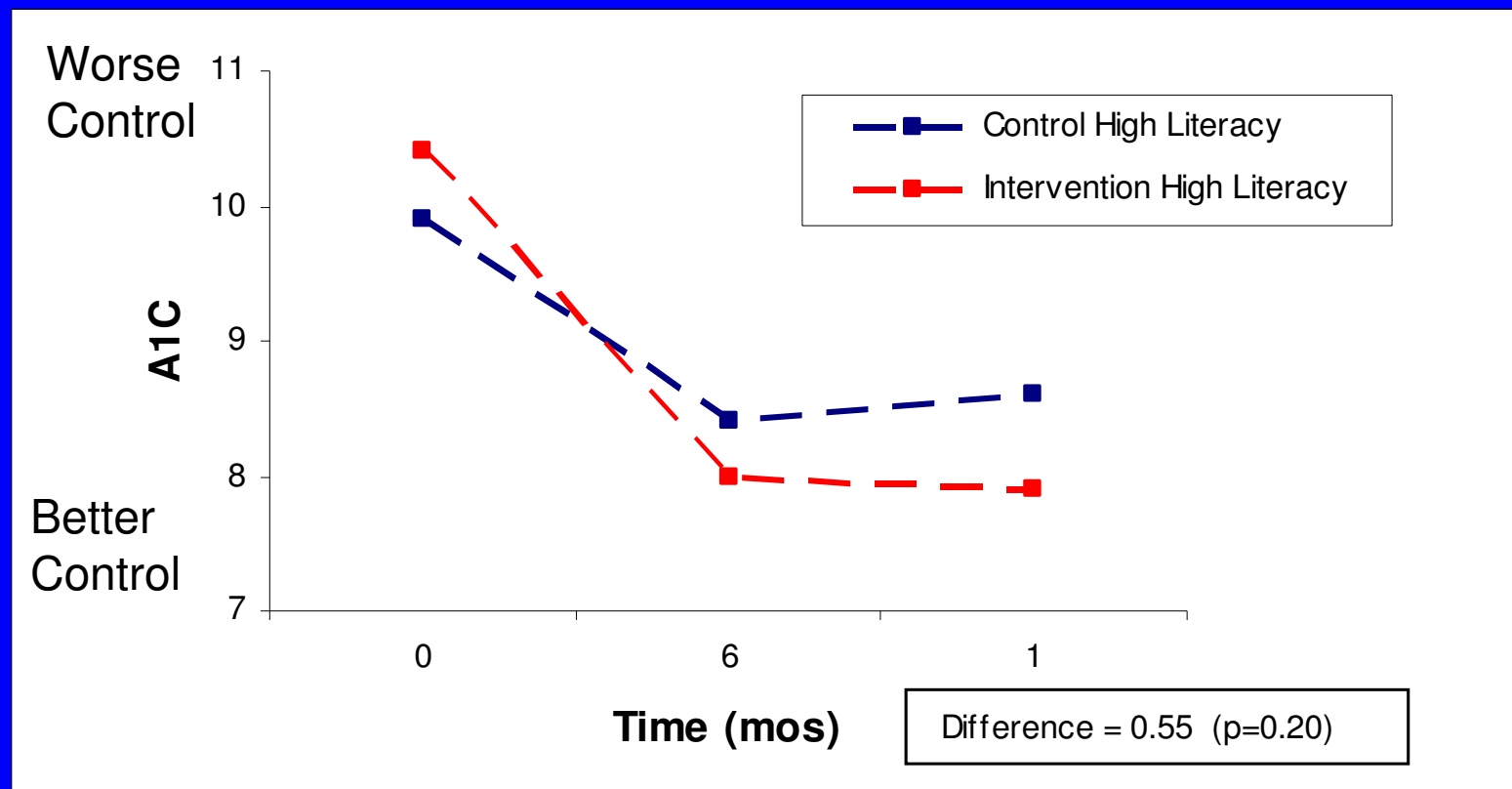
Better
Control



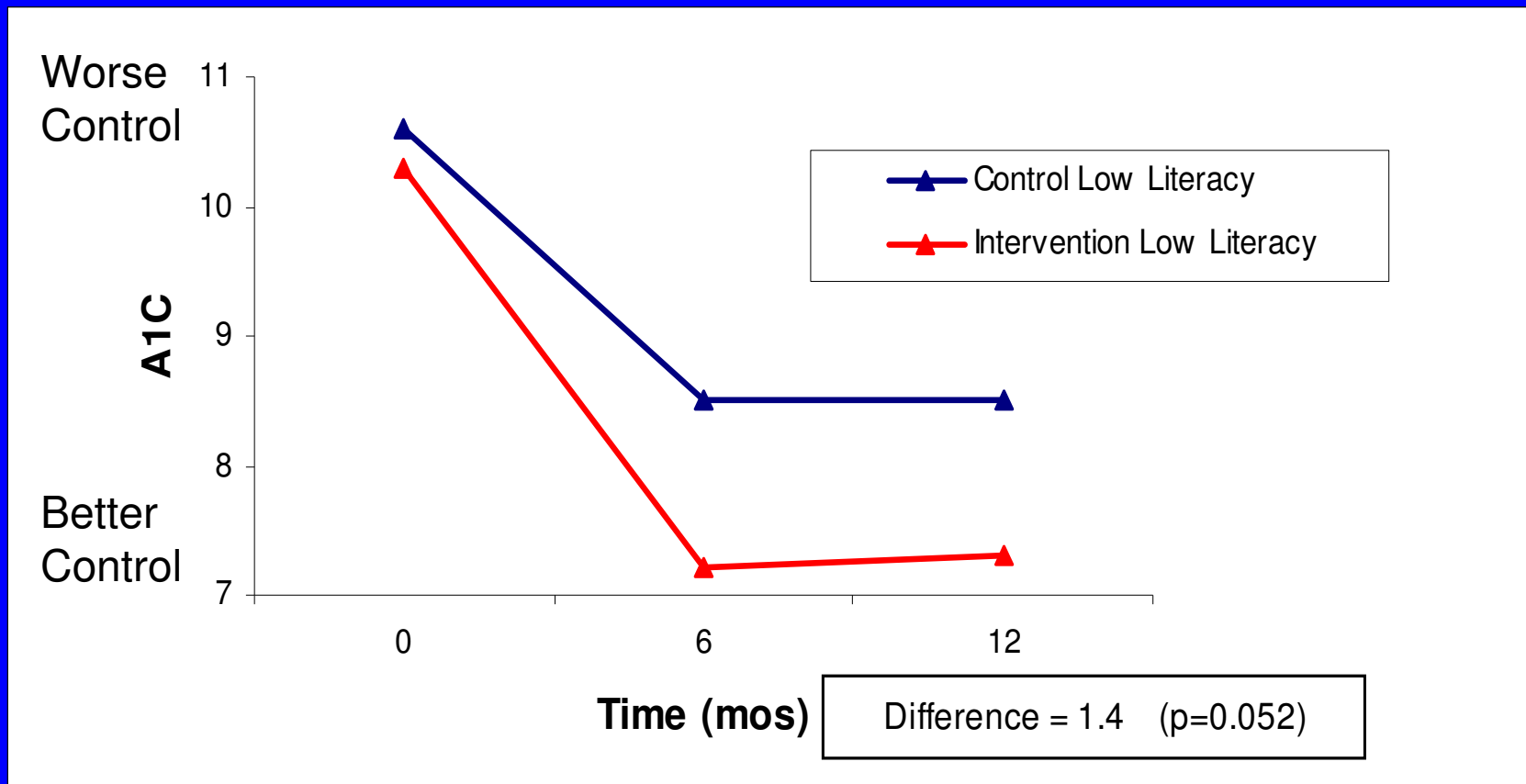
* Difference 0.7%, 95% CI (-0.08, 1.51)

** Difference 0.8%, 95% CI (-0.09, 1.73)

Glycemic Control: Results for Patients with Literacy Above 6th Grade Level



Glycemic Control: Results for Patients with Literacy at or Below 6th Grade Level



Moving to a health care system-wide program: challenges

- Organizational structure: decentralized, lack of strong focus on clinical QI
- Financing: need way to compensate for calls, non-physician encounters
- Lack of political advocacy: low literacy patients stigmatized, not organized
- Many quality efforts inpatient focused, but inpatient setting may not be sufficient to teach self-care skills well

Vision

- Universal recognition of barriers to high-quality care
- Routine tracking of process and outcome measures with public reporting
- Integrate systems-based approach into all work (will require leadership and training) and link inpatient and outpatient efforts
- Purchasers leverage payers to re-organize method of reimbursement to allow non-procedural care