Motivating Change Through Behavior Modification

Getting People to Do What They Don't Want to Do

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Objectives

- At the conclusion of this program, the participant should be able to:
  - Describe factors related to adherence in diabetes
  - Discuss tools for activating and engaging patients with diabetes
    - Patient Activation Measure® (PAM®)
    - Motivational Interviewing
    - Brief Action Planning
    - Health Literacy
  - State the importance of relationships in behavior modification

Financial Disclosure: I have no relevant financial relationships with commercial interests pertaining to the content presented in this program.

Patient EH

- 50 year-old Caucasian male with type 2 diabetes x 10 years
  - PMH:
    - COPD (80 pack-year smoking history)
    - Diabetic neuropathy x 5 years
    - HF (EF ≈ 40%)
    - Chronic kidney disease, Stage 3
    - s/p partial left foot amputation
    - Sleep apnea
    - Super morbid obesity
    - Hyperlipidemia
    - Hypertension

Patient EH

- 50 year-old Caucasian male with type 2 diabetes x 10 years
  - Labs: A1c

1/6/12	3/10/13	5/13/14	11/20/14	3/10/15
10.4	8.5	7.2	7.6	8.0

  - Disposition
    - Recently discharged from hospital following admission for right foot debridement
    - Referred to Diabetes Clinic for education

Patient EH

- Discharge medication list:
  - Albuterol (Ventolin) 2 puff inhaled 3 times a day as needed
  - Alprazolam (Xanax) 1 mg 4 times a day as needed for anxiety
  - Amlodipine (Norvasc) 10 mg each night at bedtime
  - Aspirin 81 mg each night at bedtime
  - Cholecalciferol (Vitamin D3 2000 units oral tablet) 1 tablet every day
  - Clindamycin (Cleocin) 300 mg 4 times a day
  - Duloxetine (Cymbalta) 60 mg every day
  - Exenatide (Byetta) 10 mcg subcutaneous two times a day
  - Fenofibrate (Tricor) 145 mg every day
  - Furosemide (Lasix) two times a day
  - Hydralazine (Apresoline) 25 mg every 8 hours
  - Insulin aspart (NovoLog) 30 units subcutaneous 3 times a day before meals plus sliding scale
  - Insulin detemir (Levemir) 50 units subcutaneous two times a day
  - Omeprazole (Prilosec) 20 mg before breakfast daily
  - Oxycodone-acetaminophen (Percocet) 10/325 every 6 hours as needed for pain
  - Pregabalin (Lyrica) 100 mg by mouth 3 times a day
  - Tizanidine (Zanaflex) 4 mg by mouth 3 times a day as needed for muscle spasm

Patient EH

- 50 year-old Caucasian male with type 2 diabetes x 10 years
  - Clinic visit:
    - Shows up 35 minutes late for his first appointment
    - Rolled into clinic in wheelchair by sister and accompanied by mom
    - You walk into the reception area just in time to hear him say to the receptionist, "*I'm just peachy, thank you very much, now get me the f_ _ _ outta here.*"
  - How would you respond?

Diabetes

Adherence Problems in Diabetes

- Non-adherence rates for chronic illness regimens and for lifestyle changes are ≈ 50%
- Patients with diabetes especially prone to regimen adherence problems
  - Research shows that diabetes regimens are multidimensional
    - Adherence to one regimen component may be unrelated to adherence in other regimen areas
    - Better adherence for medication use than for lifestyle change
    - Adherence rates of 65% reported for diet but only 19% for exercise
    - Two studies showed adherence to oral medications in patients with type 2 diabetes was 53 and 67% when measured by electronic monitoring

Clin Diab 2006;24:71-7

Adherence Problems in Diabetes

- Findings from Cross-National Diabetes Attitudes, Wishes, and Needs (DAWN) Study showed patient-reported adherence rates for medication in type 1 and type 2 diabetic patients of 83 and 78%, respectively
  - Self-monitoring of blood glucose (SMBG) adherence was 70 and 64%
  - Appointment keeping adherence was 71 and 72%
  - Adherence rates observed for diet were 39 and 37%
  - Adherence rates observed for exercise were 37 and 35%

All rates are for type 1 vs. type 2 patients, respectively

Clin Diab 2006;24:71-7

Factors Related to Adherence

- Demographic
- Psychological
- Social
- Health care provider
- Medical system
- Disease- and treatment-related

Clin Diab 2006;24:71-7

Factors Related to Adherence

- Demographic
  - Predictors of lower regiman adherence and greater diabetes-related morbidity:
    - Ethnic minority
    - Low socioeconomic status
    - Low levels of education
- Psychological
  - Appropriate health beliefs can predict better adherence
    - Perceived seriousness of diabetes
    - Vulnerability to complications
    - Efficacy of treatment
  - Higher levels of stress and mal-adaptive coping associated with adherence problems

Clin Diab 2006;24:71-7

Factors Related to Adherence

- Social
  - Family relationships play important role in diabetes management
    - Studies show that low levels of conflict, high levels of cohesion and organization, and good communication patterns associated with better regimen adherence
    - Greater levels of social support, particularly diabetes-related support from spouses and other family members, associated with better regimen adherence
      - Social support buffers adverse effect of stress on diabetes management

Clin Diab 2006;24:71-7

Factors Related to Adherence

- Health care provider
  - Social support provided by nurse case managers shown to promote adherence to diet, medications, SMBG, and weight loss
  - Regular, frequent contact with patients by telephone promotes regimen adherence and achieved improvements in glycemic control
    - Also improved lipid and blood pressure levels
  - Support provided to patients by health care team was key element to success in achieving good glycemic control in Diabetes Control and Complications Trial (DCCT)

Clin Diab 2006;24:71- 7

Factors Related to Adherence

- Health care provider
  - Quality of patient-doctor relationship very important determinant of regimen adherence
    - Patients who are satisfied with relationship with providers have better adherence to diabetes regimens
    - Patients who have a "dismissing attachment" style (discomfort trusting others [negative view of others] and greater self-reliance [positive view of self]) toward doctor and who rate their patient-provider communication as poor have been shown to have lower adherence rates to oral medications and SMBG

Clin Diab 2006;24:71- 7

Factors Related to Adherence

- Medical system
  - Organizational factors that promote adherence:
    - Reminder post cards and phone calls about upcoming patient appointments
    - Appointments that begin on time

"America's health care system is neither healthy, caring, nor a system."

-Walter Cronkite
1993

Clin Diab 2006;24:71- 7

Factors Related to Adherence

- Disease- and treatment-related factors
  - Lower regimen adherence can be expected when:
    - Health condition is chronic
    - When course of symptoms varies or when symptoms are not apparent
    - When regimen is more complex
    - When treatment regimen requires lifestyle changes
  - Studies with diabetic patients indicate better adherence to medications than to prescribed lifestyle changes and better adherence to simpler regimens than to more complex ones

Clin Diab 2006;24:71- 7

Adherence Statistics

- Non-adherence to medications estimated to cause 125,000 deaths annually
- Overall, about 20% to 50% of patients non-adherent to medical therapy
- People with chronic conditions only take about half of prescribed medicine
- Adherence to oral medications in patients with type 2 diabetes ≈ 50 and 70%*

http://www.acpm.org/?MedAdherTT_ClinRef
Clin Diab 2006;24:71- 7

Prescription Facts

- 4 billion prescriptions filled in 2013
  - Number of physician office visits, hospitalizations, and prescriptions filled all increased in 2013
- Average 12 prescriptions per person
  - Up nearly 2 percent year over year
- Patients aged 65 and over filled average of 28 prescriptions
  - Down slightly from 2012

Medicine Use and Shifting Cost of Healthcare: A Review of the Use of Medicines in the United States in 2013
IMS Institute for Healthcare Informatics
http://www.imshealth.com/deployedfiles/imshealth/Global/Content/Corporate/IMS%20Health%20Institute/Reports/Secure/IIHI_US_Use_of_Meds_for_2013.pdf

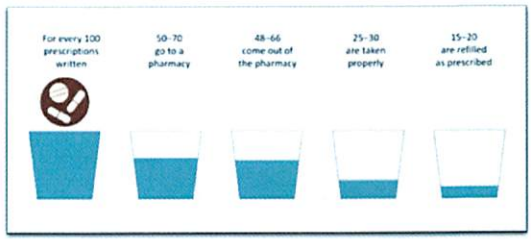
Retail Prescription Drugs Filled at Pharmacies 2013 (Annual per Capita by Age)

Location	Age 0-18	Age 19-64	Age 65+
United States	4.1	12.2	27.4
Alabama	5.9	17.7	36.0
Florida	3.9	11.3	24.8
Georgia	4.1	12.1	30.9
Kentucky	6.9	20.4	40.7
Mississippi	6.7	16.7	38.4
North Carolina	3.4	9.9	21.8
South Carolina	4.8	12.9	28.3
Tennessee	5.6	18.7	38.5
Virginia	3.7	11.6	26.5
West Virginia	6.0	20.0	37.4

All products filled by retail pharmacies, including new prescriptions and refills of both brand name and generic drugs.

http://kff.org/other/state-indicator/retail-rx-drugs-by-age/

Gap Between Written Prescription and Actual Medication Use



American College of Preventive Medicine
http://www.acpm.org/?MedAdherTT_ClinRef

Proposed Solutions for Improving Medication Adherence

- Health Care Teams
  - Care teams comprised of nurses, care managers, pharmacists, and other clinicians
  - Increase number of touchpoints for patients, offering repeated checks on adherence as they move through system
- Patient Engagement and Education
  - Counseling by providers and pharmacists to ensure patients understand disease and role medication plays in improving condition

*New England Health Institute (NEHI). *Thinking Outside the Pillbox: A System-wide Approach to Improving Patient Medication Adherence for Chronic Disease.* August 2011. Available at: http://bit.ly/d6E3Ce.

Proposed Solutions for Improving Medication Adherence

- Payment Reform — Good idea?
  - Realigning reimbursement incentives away from rewarding volume and towards rewarding good outcomes
  - Encourage providers to invest in resources such as counseling services to address adherence
- Leveraging Health Information Technologies
  - Ensure complete and accurate (*and timely*) medication data sharing among all key players

*New England Health Institute (NEHI). *Thinking Outside the Pillbox: A System-wide Approach to Improving Patient Medication Adherence for Chronic Disease.* August 2011. Available at: http://bit.ly/d6E3Ce.

Audience Response Question 1

- All of the following factors have been shown to be related to diabetes regimen adherence problems EXCEPT:
  a. Low socioeconomic status
  b. Depression
  c. Quality of patient-doctor relationship
  d. Type-A personality

Patient EH

- Adherence Factors
  - Demographic
    - 50 yo Caucasian male on Medicaid x 5 years
    - Denied disability x 3
    - Completed high school and some technical college
    - Former hair stylist/bartender
      - Self-described former "*life of the party*"
        - » "*If they make a drug, I've tried it*"

Patient EH

- Adherence Factors
  - Psychological
    - *"My diabetes is going to kill me."*
    - *"I'm sick and tired of being sick and tired."*
    - *"What am I gonna do if I run outta my nerve/pain pills?"*
    - *"I've got to get outta this house and do what I'm gonna do cause I'm going to lose my license in 2 months and then I won't be able to go anywhere."*
    - *"Them people on that show, 'My 600-lb Life' get around better than I do."*

Patient EH

- Adherence Factors
  - Social
    - Lives in grandmother's trailer
      - Grandmother was *"as close to God on earth as I've ever seen."*
      - Trailer between sister's and mother's trailers
    - Sister has 3 children (ages 3, 6, and 9) and is currently separated from husband (restraining order pending)
      - Husband is African-American
      - EH is primary "babysitter"

Patient EH

- Adherence Factors
  - Social *(continued)*
    - Parents divorced
      - Dad works
        - » Asks to borrow car and/or money weekly
      - Mom works
        - » Is the *"force to be reckoned with"*
        - » Is remarried to *"satan"*
    - Parents do not approve of homosexual lifestyle
      - *"I tried everything to get my daddy's attention growing up. Telling him I was gay finally got it!"*
    - Many, many, many past boyfriends
      - Some still call/text
      - *"God is calling me outta homosexuality, so I do not want to talk to them no more."*

Patient EH

- Adherence Factors
  - Health care provider
    - One primary care provider x 5 years
      - PCP recently changed employers
      - Recently saw Physician Assistant at former clinic until PCP could get established with new employer
    - Cardiologist
      - Chinese ethnicity who speaks very broken English
    - Nephrologist
      - Pakistan ethnicity who speaks very broken English
    - Endocrinologist
      - Indian ethnicity

Patient EH

- Adherence Factors
  - Health care provider *(continued)*
    - Surgeon at wound center
      - Travels to neighboring county because does not like surgeon at wound center in home county
    - Ophthalmologist
      - Treats ocular edema and diabetic retinopathy
    - Home health nurse
      - Comes to redress foot wound
    - Pharmacist-owner at independent retail pharmacy
    - Primary Nurse Care Manager provided by Medicaid (CCNC)
    - Pharmacist that works with Care Manager (CCNC)

Patient EH

- Adherence Factors
  - Medical system
    - Medicaid insurance.....NCTracks *(need I say more?)*
      - *"My insurance won't pay for me to get fat surgery."*
    - Refuses to go to hospital in home county
  - Disease- and treatment-related
    - PMH as listed on first slide
    - 7 past surgeries for necrotizing fasciitis
      - *"Dr. _____ butchered all my man-parts."*
      - *"5 of the surgeries were to fix what Dr._____ screwed up."*
        - » Dr. _____ one of the surgeons at wound center in home county
      - *"If I ever see Dr. _____ out in public, I WILL shoot him."*

"People actively involved in their health and health care tend to have better outcomes – and some evidence suggests, lower costs."

-Health Policy Brief
HealthAffairs
February 14, 2013

http://www.healthaffairs.org/healthpolicybriefs/brief.php?brief_id=86

"Coercion thru threats of dire outcomes from poor control of the disorder are doubly unethical: it does not work and high anxiety patients withdraw from care when threatened."

Haynes RB, McDonald HP, Garg AX
Helping Patients Follow Prescribed Treatment

JAMA 2002;288:2880-83

Tools for Engagement

- Empower patients to take the lead
  - Patient Activation Measure (PAM)
  - Motivational Interviewing
- Equip patients to succeed
  - Brief Action Planning (BAP)
- Educate patients when there's a need
  - Health Literacy
  - Teach Back
- Encourage patients to believe
  - Power of relationships

Water-drinking Flow Chart

Water-drinking Flow Chart

- **Psychological considerations**
  - Undiagnosed medical problem
    - Depression, etc.
  - Emotional coping
  - Wants to drink someone else's water
  - Wants to sell the water
  - Attention-seeking
  - Wants to escape environment
  - Does not want to live

Stages of Change

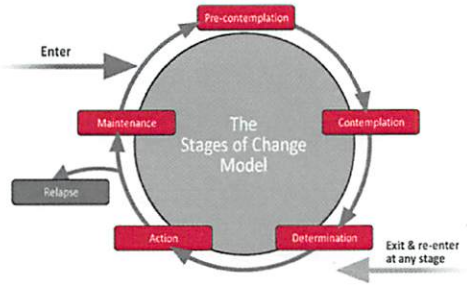


Figure: http://johnnyholland.org/2011/01/the-a-b-c-of-behaviour/
Concept: Prochaska JO, Velicer WF. The transtheoretical model of health behavior change. *Am J Health Promot 1997;12(1):38-48*

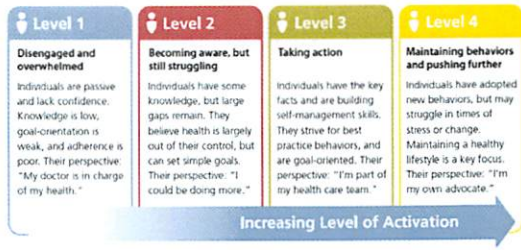
Patient Activation Measure (PAM)

Patient Activation Measure® (PAM®)

- Commercial assessment tool that gauges knowledge, skills and confidence essential to managing one's own health and healthcare
- 10- or 13-question scale developed by Judith Hibbard, DrPH and Bill Mahoney, PhD and colleagues at University of Oregon
- Predictive guidance helps to identify realistic and achievable opportunities to change behaviors and treatment that can move individual towards increasing activation
- Segments patients into one of four activation levels along empirically derived continuum

http://www.insigniahealth.com/solutions/patient-activation-measure

Patient Activation Measure® (PAM®)



http://www.insigniahealth.com/wp-content/uploads/2014/08/PAM-Fact-Sheet-08122014.pdf

Patient Activation Measure® (PAM®)

Level 1	When all is said and done, I am the person who is responsible for taking care of my health
	Taking an active role in my own health care is the most important thing that affects my health
Level 2	I am confident I can help prevent or reduce problems associated with my health
	I know what each of my prescribed medications do
	I am confident that I can tell whether I need to go to the doctor or whether I can take care of a health problem myself
	I am confident I that I can tell a doctor concerns I have even when he or she does not ask
	I am confident that I can follow through on medical treatments I may need to do at home
	I understand my health problems and what causes them

http://www.theoma.org/node/3247

Patient Activation Measure® (PAM®)

Level 3	I know what treatments are available for my health problems
	I have been able to maintain (keep up with) lifestyle changes, like eating right or exercising
	I know how to prevent problems with my health
Level 4	I am confident I can figure out solutions when new problems arise with my health
	I am confident I can maintain lifestyle changes, like eating right and exercising, even during times of stress

- Possible Responses
  - Disagree Strongly
  - Disagree
  - Agree
  - Agree Strongly
  - N/A

http://www.theoma.org/node/3247

Patient Activation Measure® (PAM®)

- Score can predict healthcare outcomes including medication adherence, ER utilization and hospitalization
- Used in number of ways to improve delivery of health care
  - Metric to assess degree to which patient's are prepared and able to self-manage
  - Track impact of interventions and tailored support on increasing patient activation levels
  - Segment an enrolled patient population, and direct more resources to low-activated patients
    - More efficient use of resources
  - Tailor support and education to help increase activation

http://www.insigniahealth.com/wp-content/uploads/2014/08/PAM-Fact-Sheet-08122014.pdf

Patient Activation Measure® (PAM®)

- Tayloring: Levels 1 and 2

Lower Activated

Characteristics	Approach to Patient Support
• Overwhelmed • Weighted down by negative emotions • Lack confidence • Poor problem solving skills • Lack basic health/condition knowledge • Poor self-awareness • Few self-management skills developed • Passive. Self-management is following Dr. orders • May not grasp importance of their role	• one focus at a time. Avoid a long list of goals/actions • Focus on what is important to the patient • Reinforce the importance of their participation • Small steps with encouragement • Experiencing success builds confidence • Loop back on behavioral goals • Show empathy – "You have a lot going on", "feeling overwhelmed is understandable" • Build on strengths • Focus on positive emotions • Develop problem solving skills– jointly problem solve

http://www.slideboom.com/presentations/404469/Judith-Hibbard-PAM-presentation

Patient Activation Measure® (PAM®)

- Tayloring: Level 3

Characteristics	Approach to Patient Support
• Takes some positive actions around health • Feels more ready to take on challenges • Still needs to build confidence and fill knowledge gaps	• Use small step approach, but focus on 'larger' single step • Focus on what Individual wants to focus on • Build on strengths • Provide encouragement • Loop back on behavioral goals • Jointly problem solve around specific behaviors

http://www.slideboom.com/presentations/404469/Judith-Hibbard-PAM-presentation

Patient Activation Measure® (PAM®)

- Tayloring: Level 4

Higher activated

Characteristics	Approach to Patient Support
• Goal Oriented • More self-aware • Self-management skills developed • Pro-active • Good problem solving skills	• Focus on what is important to the patient • Focus on maintaining behaviors and any lagging behaviors • Still use small steps approach • Experiencing success builds confidence • Stretch goals • Problem solving around relapse issues • Build on strengths

http://www.slideboom.com/presentations/404469/Judith-Hibbard-PAM-presentation

Motivational Interviewing (MI)

Motivational Interviewing

"A collaborative, person-centered form of guiding to elicit and strengthen motivation for change"

William R Miller, PhD
Stephen Rollnick, PhD

Motivational Interviewing

- First described in 1983
- Initially developed as brief intervention for problem drinking
- Tested with other health problems in 1990's
  - Focus in chronic diseases
- Works by activating patients' own motivation for change and adherence to treatment

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

"Spirit" of MI

- Foundational way of interacting with patients
  - Collaboration
    - Focus on mutual understanding
  - Acceptance
    - Patient makes decisions. We are guides.
  - Evocation
    - Evoke patient's own motivation and resources for change
  - Compassion
    - Understand and validate their reality

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

Four Guiding Principles of MI

- **R** Resist the Righting Reflex
  - Natural human tendency to resist persuasion
  - Tends to make patients argue FOR why they do not need to change
- **U** Understand Your Patients Motivations
  - Patient's own reasons for change, *not yours*, most likely to trigger behavior change
- **L** Listen to Your Patient
  - MI involves as much listening as informing
- **E** Empower Your Patient
  - Outcomes are better when patients take an active interest and role in their own health care

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

Ten Essential Characteristics of MI

- These are *necessary* and *defining* components of MI
- None of them is *sufficient* to make it MI
- Most are not *unique* to MI

Their confluence defines MI

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

Ten Essential Characteristics of MI

1. MI is a conversation **ABOUT CHANGE**
   - Usually but not necessarily about behavior change
   - Change can be broadly defined
2. MI has a particular **PURPOSE**
   - Purpose is to evoke and strengthen personal motivation for change
3. MI is **COLLABORATIVE**
   - Person-centered partnership
4. MI **HONORS AUTONOMY** and self-determination
   - People make their own choices

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

"People often say that motivation doesn't last. Well, neither does bathing. That's why I recommend both daily."

- Zig Ziglar

Ten Essential Characteristics of MI

5. MI uses **SPECIFIC SKILLS**
   - Applies specific helping skills in particular prescribed ways (e.g., differential use of OARS)
     - **O** pen-ended Questions
     - **A** ffirm
     - **R** eflective Listening
     - **S** ummarize
6. MI is **EVOCATIVE**
   - Evokes person's own motivations for change
   - Develops discrepancies around ambivalence

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

Ten Essential Characteristics of MI

7. MI is **GOAL-ORIENTED**
   - Moves toward a particular change goal
   - Not merely *exploring* ambivalence
   - Seeks to resolve ambivalence in direction of change
   - Sometimes involves *creating* ambivalence
8. MI attends to specific forms of **SPEECH**
   - Attuned to and guided by particular aspects of language
   - Elicits and strengthens change talk
   - Various types of change talk: **DARN-CAT**

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

DARN - CAT

- Preparatory Change Talk
  - **D** esire
    - I want to change
  - **A** bility
    - I can change
  - **R** eason
    - It's important to change
  - **N** eed
    - I should change
- Implementing Change Talk
  - **C** ommitment
    - I will make changes
  - **A** ctivation
    - I am ready, prepared, and willing to change
  - **T** aking steps
    - I am taking specific actions to change

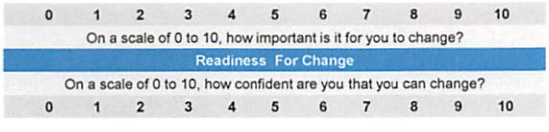
Ten Essential Characteristics of MI

9. MI **RESPONDS TO CHANGE TALK** in specific ways
   - Readiness Ruler
10. MI **REPONDS TO RESISTANCE** and **SUSTAIN TALK** in specific ways
    - Non-confrontational (avoids argument)
    - Does not resist resistance

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

Readiness Ruler

- How ***important*** is it to you to make this change?
- How ***confident*** are you about making this change?
- How ***committed*** are you to making this change?
- How ***ready*** are you to change?



Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. Guilford Press, NY: 2008

Ten Things MI is *Not*

1. The transtheoretical model of change
2. Way of tricking people into doing what you want them to do
3. A technique
4. Decisional balance
5. Assessment feedback
6. Cognitive-behavior therapy
7. Client-centered therapy
8. Easy to learn
9. Practice as usual
10. A panacea

Behav Cogn Psychother 2009 Mar;37(2):129-40

Patient JK

- **72-year-old African-American widowed male with h/o MI x 2, HF, DM x 15 years (A1c = 12.3% in February 2014)**
  - Current Medications

Medication	Adherence Index
Aspirin 325 mg daily	-
Furosemide 40 mg daily	0.60
Glipizide 10 mg BID	0.40
Lisinopril 40 mg daily	0.40
Metformin 2 gm BID	0.40
Omeprazole 20 mg daily	0.60
Sitagliptin 100 mg daily	No fills

  - Diagnosis: Non-adherence

Patient JK

- **72-year-old African-American widowed male with h/o MI x 2, HF, DM x 15 years (A1c = 12.3% in February 2014)**
  - Treatment plan
    - What factors are important to consider when working with JK?
      - » Demographic
      - » Psychological
      - » Social
      - » Health care provider
      - » Medical system
      - » Disease- and treatment-related

Patient JK

- **72-year-old African-American widowed male with h/o MI x 2, HF, DM x 15 years (A1c = 12.3% in February 2014)**
  - After several visits with JK, you discover that:
    - Wife died 6 months ago
      - » Married for 55 years
      - » "*'Ma' did everything for me*"
      - » He found her dead in recliner one morning after seeing her give herself a shot for "*sugar*" before bed
    - 3 sons and 2 daughters
      - » 2 sons have passed away, 1 son in prison
      - » Daughters live in other states
        - Seldom visit

Patient JK

"The way in which you talk with your patients about their health can substantially influence their personal motivation for behavior change."

Motivational Interviewing in Health Care: Helping Patients Change Behavior
Stephen Rollnick
William R. Miller
Christopher Butler

Desired Action	De-motivational Interrogating	Motivational Interviewing
Lower A1c	*"Your A1c is too high. Needs to be lower."*	*"How have you been feeling lately?"*
Improve medication adherence	*"Why are you not taking your medicines?"*	*"Which medications seem to be helping you right now?"*

Patient JK

- **Prescription:**
  - Come to Pharmacy lunch counter qAM to take medications

  - Stop omeprazole, glipizide, and sitagliptin
  - Start insulin glargine 15 units qAM

Take-aways to Use Today

- **Collaborate with your patients**
  - See patient as expert on themselves
- **Evoke patient's own motivation and resources for change**
  - Avoid the "expert" trap
- **Respect patient autonomy**
  - Inform and encourage choices without judgment
- **Demonstrate genuine compassion**
  - Understand and validate ***their*** struggle
  - **Honor reality**

Closing MI Thoughts

- ***"Everybody's motivated about something."***

Community Care of North Carolina (CCNC) MI Resource Guide
https://www.communitycarenc.org/media/files/mi-guide.pdf

- ***"If your consultation time is limited, you are better off asking patients why they would want to make a change and how they might do it rather than telling them that they should."***

William R Miller, PhD
Stephen Rollnick, PhD
Christopher Butler, MD

There is no guarantee that using MI techniques in your conversations with your difficult patients will get you the outcomes you want, but it will most certainly help you understand why you are not.

Brief Action Planning (BAP)

Brief Action Planning (BAP)

- Highly structured, stepped-care, self-management support technique grounded in principles and practice of Motivational Interviewing
- Structured way of interacting with individuals interested in making a concrete action plan for some aspect of their health
- Use when patients are ready to start change process

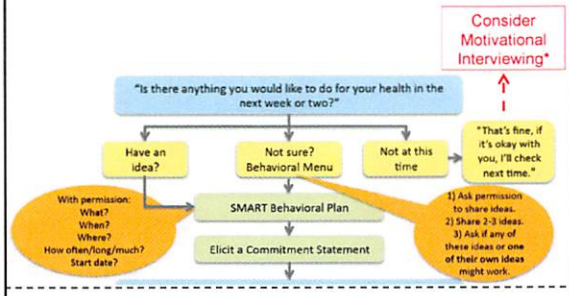
http://www.centrecmi.ca/learn/brief-action-planning/

Brief Action Planning (BAP)

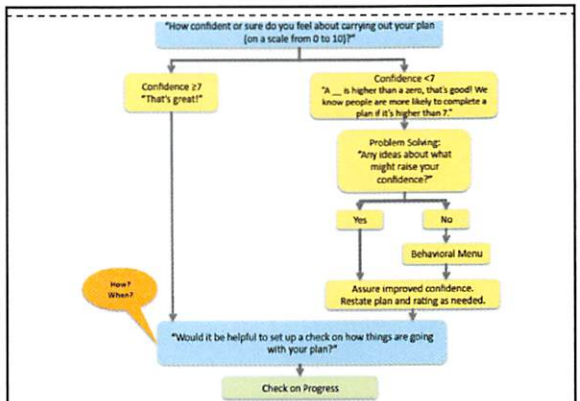
- Structured around 3 core questions:
  - *"Is there anything you would like to do for your health in the next week or two?"*
  - *"I wonder how sure you feel about carrying out your plan. Considering a scale of 0 to 10, where '0' means you are not at all sure and '10' means you are very confident or very sure, how sure are you about completing your plan?"*
  - *"Would it be useful to set up a check on how it is going with your plan?"*

http://www.centrecmi.ca/learn/brief-action-planning/

Brief Action Planning Flow Chart

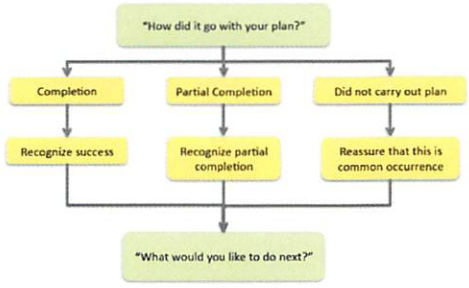


*Suggested action. Not part of BAP Flow Chart



http://www.centrecmi.ca/wp-content/uploads/2013/08/BAP_flow_Chart_2014-03-01.pdf

Checking on the BAP



http://www.centrecmi.ca/wp-content/uploads/2013/08/BAP_flow_Chart_2014-03-01.pdf

Health Literacy

Health Literacy

The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.

Institute of Medicine Report
Health Literacy: A Prescription to End Confusion (2004)

http://nnlm.gov/outreach/consumer/hlthlit.html

More than half of US adults (90 million) find it difficult to understand and act on health information

National Assessment of Adult Literacy, 2003

National Assessment of Adult Literacy (NAAL) is a nationally representative assessment of English literacy among America adults age 16 and older. Sponsored by the National Center for Education Statistics (NCES), the NAAL is the Nation's most comprehensive measure of adult literacy. The Health Literacy Component of the NAAL introduces the first-ever national assessment of adults' ability to use literacy skills with health-related materials and forms.

http://nces.ed.gov/naal/health.asp

Health Literacy

- According to HSS, patient needs to understand the following to be considered health literate:
  - Instructions and labeling on medications
  - Instructions from doctor
  - Discharge instructions
  - Information describing medical conditions and appropriate care
  - Health education materials
  - Informed consent forms
  - Appointment slips
  - Insurance applications and forms
  - How to navigate health care system

HSS = US Department of Health and Human Services http://www.health.gov/communication/hlactionplan/

Outcomes Associated with Literacy

Health Outcomes/Health Services
- General health status
- Hospitalization
- Prostate cancer stage
- Depression
- Asthma
- Diabetes control
- HIV control
- Mammography
- Pap smear
- Pneumococcal immunization
- Influenza immunization
- STD screening
- Cost
- Mortality

Behaviors Only
- Substance abuse
- Breastfeeding
- Behavioral problems
- Adherence to medication
- Smoking

Knowledge Only
- Birth control knowledge
- Cervical cancer screening
- Emergency department instructions
- Asthma knowledge
- Hypertension knowledge
- Prescription labels

DeWalt, et al JGIM 2004;19:1228-1239

Universal Precautions

- Taking specific actions that minimize risk for everyone when unclear which patients may be affected
  - Common example : Bloodborne pathogens
- Hard to know which patients have limited health literacy
  - Some patients with limited health literacy:
    - Have completed high school or college
    - Are well spoken
    - Look over written materials and say they understand
    - Hold white collar or health care jobs
    - Function well when not under stress

http://www.ahrq.gov/legacy/qual/literacy/healthliteracytoolkit.pdf

Why Universal Precautions?

- People with higher literacy skills often have trouble understanding medical care
- No screening instrument can tell you if people will understand what they need to know
- Most interventions designed for people with low literacy help those with higher literacy

US Department of Health and Human Services

Goals to Improve Health Literacy

1. Develop and disseminate health and safety information that is accurate, accessible and actionable
2. Promote changes in health care system that improve health information, communication, informed decision-making and access to health services
3. Incorporate accurate, standards-based and developmentally appropriate health and science information and curricula in child care and education through university level

http://www.health.gov/communication/hlactionplan/

US Department of Health and Human Services

Goals to Improve Health Literacy

4. Support and expand local efforts to provide adult education, English language instruction and culturally and linguistically appropriate health information services in community
5. Build partnerships, develop guidance and change policies
6. Increase basic research and development, implementation, and evaluation of practices and interventions to improve health literacy
7. Increase dissemination and use of evidence-based health literacy practices and interventions

http://www.health.gov/communication/hlactionplan/

Health Literacy

http://www.stvincentcharity.com/programs-services/centers-excellence/health-literacy/what-is.aspx

Three Things to Do Now

- Use tools currently available
  - *Health Literacy Universal Precautions Toolkit*
    - http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/
  - *AHRQ Pharmacy Health Literacy Assessment Tool and User's Guide*
    - http://www.ahrq.gov/professionals/quality-patient-safety/pharmhealthlit/pharmlit/index.html
- Use teach-back method of communication
- Help change systems of care
  - Make health literacy a priority ***in your work environment***

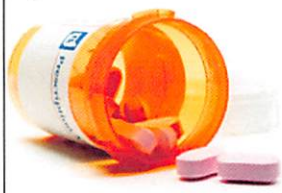
Literacy Summary

- Low health literacy more common than you think
  - *And very hard to identify*
- Low health literacy related to worse health outcomes in variety of settings
- Strategies exist to help provide better care for patients with low health literacy
- Programs and services need to be designed with health literacy in mind

"Eschew Obfuscation"

What Does This Sign Say?

Please remember to bring all of your medicines, vitamins, and supplements in their original containers with you to every office visit. Thanks



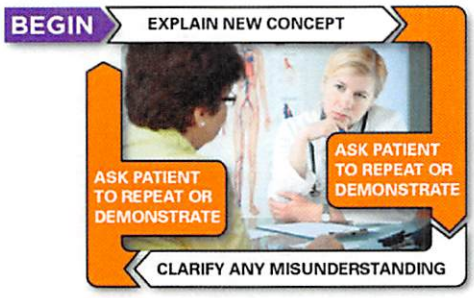
Teach Back

Teach Back

- 40 – 80% of medical information forgotten immediately
- Nearly half of information retained is incorrect
- Teach back is way to confirm that you have explained what patient needs to know in a manner that they understand
- Helps staff understand how to communicate with patient

AHRQ Health Literacy Universal Precautions Toolkit
http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthliteracytoolkit.pdf

Teach Back



http://www.emblemhealth.com/newsnotes/spring2011/nn_Clin5_Spr11.html

"The problem with communication is the illusion that it has occurred."

-- George Bernard Shaw

Audience Response Question 2

- All of the following are tools that can be used to help engage patients EXCEPT:
  a. Teach back
  b. Patient Activation Measure® (PAM®)
  c. Brief Action Planning (BAP)
  d. Military Interrogation (MI)

Power of Relationships

World Health Organization

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

The Definition has not been amended since 1948.
http://www.who.int/about/definition/en/print.html

Relationships Matter

- Family and social support important aspects of adherence to diabetes management
- Numerous correlational studies have shown positive and significant relationship between social support and adherence to diabetes treatment

Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy 2013:6 421–426

Provider Effect

- **Study:** Examine influence of patient and physician psychosocial, sociodemographic, and disease-related factors on diabetes medication adherence
- **Methods:** Data collected from 41 Geisinger Clinic primary care physicians and 608 patients with type 2 diabetes
  - Adherence to oral hypoglycemic medications calculated using medication possession ratio based on physician orders in electronic health records (MPREHR)
    - MPREHR: Proportion of total time in 2 years prior to study enrollment that patient was in possession of oral hypoglycemic medications

Diab Educator 2012;38(3):397-408

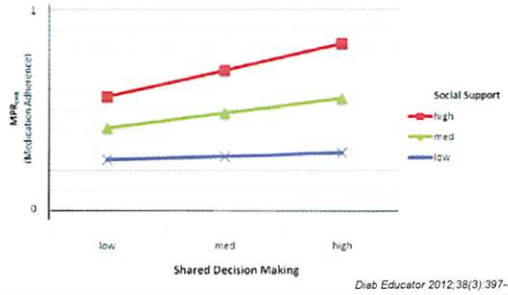
Provider Effect

- **Results:**
  - Factors associated with better adherence to oral hypoglycemic medications:
    - Satisfaction with physician's patient education skills
    - Patient beliefs about need for medications
    - Lower diabetes-related knowledge
      - Patient knowledge may not be directly related to self-management behaviors
    - Shorter duration of time with diabetes
    - Taking only oral hypoglycemic medications
  - Association between shared decision making and medication adherence significantly modified by patients' level of social support

Diab Educator 2012;38(3):397-408

Provider Effect

Effect modification of the relationship between perceived involvement in care and medication adherence by level of social support



Diab Educator 2012;38(3):397-408

Provider Effect

- What patients know (not what kinds of people they are), and what things mean, is what accounts for effectiveness of much of medical treatment
- Single most important source of knowledge and meaning for patients is their doctors
  - Nature, character, personality, behavior, and style of doctors can influence good deal of human response
- Doctor's attention, aptitudes, attitudes, and enthusiasm can influence patients and enhance (or retard) healing process
- **Depth of providers convictions conveys to patients the power of their treatments**

Meaning, Medicine, and the Placebo Effect
Daniel Moerman, PhD

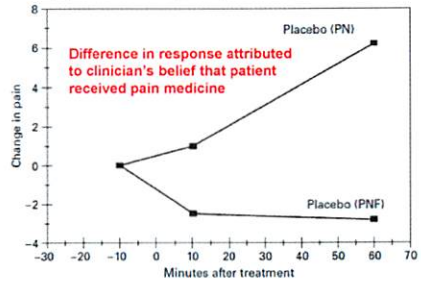
Provider Effect

- **Study:** 60 people having wisdom teeth removed
  - Told they would receive either:
    - Placebo (which might reduce pain of having tooth removed, or might do nothing) **OR**
    - Naloxone (which might increase pain, or do nothing) **OR**
    - Fentanyl (which might reduce pain, or do nothing) **OR**
    - No treatment at all
- **First phase:** Clinicians (*not patients)* were told fentanyl was not yet a possibility because of administrative problems with study protocol (PN Group)
- **Second phase (week later):** Clinicians told that problems had been resolved, and now patients might indeed receive fentanyl (PNF Group)
- **Results:** Pain after placebo administration in PNF Group significantly less than pain after placebo in PN Group at 60 minutes

Gracely RH, Dubner R, Deeter WR, et. al. Clinicians' Expectations Influence Placebo Analgesia. *Lancet 1985;1, no. 8419:43*

Provider Effect

Effects of physician knowledge on patient response to inert medication



Gracely RH, Dubner R, Deeter WR, et. al. Clinicians' Expectations Influence Placebo Analgesia. *Lancet 1985;1, no. 8419:43*

Emotional Bank Accounts

- Metaphor for amount of trust that exists in relationships
  - Both personal and professional
- Deposits build and repair trust
- Withdrawals break down and lessen trust
- Everyone is an accountant
- We track deposits and withdrawals others make with us, and they do same with us

The 7 Habits of Highly Effective People
Stephen R. Covey

Emotional Bank Accounts

- Deposits
  - Seeking first to understand
  - Showing kindness, courtesy, and respect
  - Keeping promises and commitments
  - Being loyal to the absent
  - Setting clear expectations
  - Apologizing when you make a withdrawal
  - Forgiving others

The 7 Habits of Highly Effective People
Stephen R. Covey

Emotional Bank Accounts

- Withdrawals
  - Assuming you understand
  - Showing unkindness, discourtesy, or disrespect
  - Breaking promises or commitments
  - Being disloyal or bad-mouthing others
  - Creating unclear expectations
  - Being proud or arrogant
  - Holding grudges

The 7 Habits of Highly Effective People
Stephen R. Covey

Emotional Bank Accounts

- For a strong Emotional Bank Account with others:
  - Remember 5:1 rule: May take five deposits to make up for one withdrawal
  - Take time to understand other person's "currency"
    - What constitutes a deposit to one person may be a withdrawal to another
  - Practice being sincere and consistent in your deposits
    - Small deposits over time build large account balances

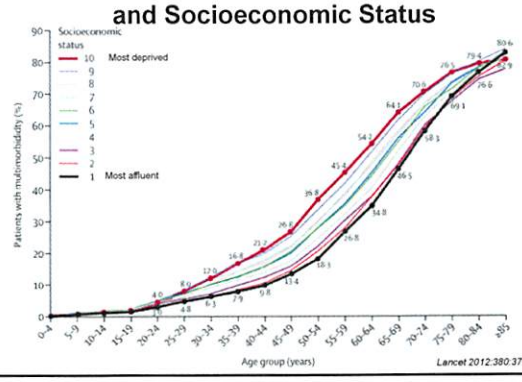
The 7 Habits of Highly Effective People
Stephen R. Covey

Epidemiology of Multimorbidity and Implications for Health Care, Research, and Medical Education

- Methods
  - Cross-sectional study on 40 morbidities from database of 1,751,841 people registered with 314 medical practices in Scotland
- Findings
  - 42.2% of all patients had one or more morbidities
  - 23.2% were multimorbid (presence of ≥ 2 disorders)
  - **Onset of multi-morbidity occurred 10–15 years earlier in people living in most deprived areas compared with most affluent**
  - **Presence of mental health disorder increased as number of physical morbidities increased and was much greater in more deprived than in less deprived people**
- Interpretation
  - Complementary strategy needed, supporting generalist clinicians to provide personalized, comprehensive continuity of care, especially in socioeconomically deprived areas

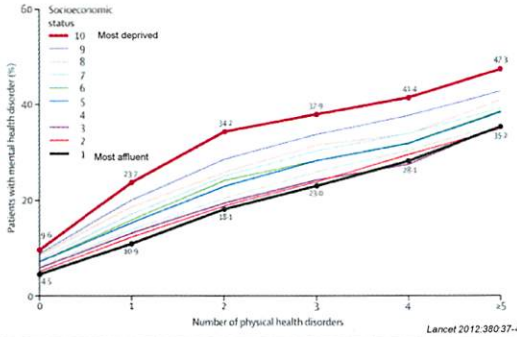
Lancet 2012;380:37-43

Prevalence of Multimorbidity by Age and Socioeconomic Status



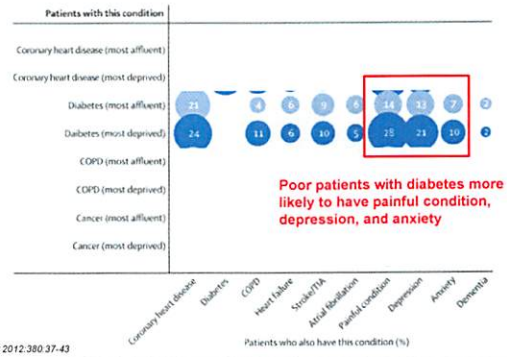
Lancet 2012;380:37-43

Physical and Mental Health Comorbidity and the Association with Socioeconomic Status



Lancet 2012;380:37-43

Selected Comorbidities in People with Four Common, Important Disorders in the Most Affluent and Most Deprived Deciles



Lancet 2012;380:37-43

Motivation to Change

- Two things that help one move out of poverty:
  - Education
  - Relationships
- Four reasons one leaves poverty:
  - It's too painful to stay
  - A vision or goal
  - Special talent or skill
  - Key relationship

A Framework for Understanding Poverty
Ruby K. Payne, PhD

Patient EH: Rewind....

- 50 year-old Caucasian male with type 2 diabetes x 10 years
  - Clinic visit:
    - Shows up 35 minutes late for his first appointment
    - Rolled into clinic in wheelchair by sister and accompanied by mom
    - You walk into the reception area just in time to hear him say to the receptionist, "*I'm just peachy, thank you very much, now get me the f _ _ _ outta here.*"
  - Knowing what you know now about EH, how would you respond?

Audience Response Question 3

- Which of the following would be the best statement to make to EH at this point?
  a. We do not use that kind of language in our clinic. Please refrain from cursing when you are here.
  b. Well you are never gonna get better with that kind of attitude.
  c. Well somebody got up on the wrong side of the bed this morning, didn't he?
  d. You do have a lot going on Mr. H. I understand that you are frustrated and I want to try to help.

"There is no medicine like hope, no incentive so great, and no tonic so powerful as expectation of something tomorrow."

- Orison Swett Marden, MD

Patient EH

- Where is EH on the PAM Scale?

http://www.insigniahealth.com/wp-content/uploads/2014/08/PAM-Fact-Sheet-08122014.pdf

Patient EH

- Tayloring: PAM Levels 1 and 2

	Characteristics	Approach to Patient Support
Lower Activated	• Overwhelmed • Weighted down by negative emotions • Lack confidence • Poor problem solving skills • Lack basic health/condition knowledge • Poor self-awareness • Few self-management skills developed • Passive. Self-management is following Dr. orders • May not grasp importance of their role	• one focus at a time. Avoid a long list of goals/actions • Focus on what is important to the patient • Reinforce the importance of their participation • Small steps with encouragement • Experiencing success builds confidence • Loop back on behavioral goals • Show empathy – "You have a lot going on", "feeling overwhelmed is understandable" • Build on strengths • Focus on positive emotions • Develop problem solving skills– jointly problem solve

http://www.slideboom.com/presentations/404469/Judith-Hibbard-PAM-presentation

Telling the frustrated, overwhelmed, ambivalent person with diabetes they need to take better care of themselves is akin to telling the person stuck in quicksand they need to get out as soon as possible.

Closing Thoughts

- Patients often need encouragement more than education
- We tend to operate from the perspective that everyone wants to live a long life
  - *That is not always the case*
- There are no guarantees in medicine
  - *Following guidelines and recommendations does not guarantee positive outcomes*
  - *Research data help us **recommend** options that reduce risk……not guarantee results*

DCCT and EDIC

Complications

Table 2—Clinical characteristics of DCCT/EDIC participants at DCCT baseline, DCCT closeout, and EDIC year 18

	DCCT baseline (1983–1989) (*N* = 1,441)		End of DCCT (1993) (*N* = 1,422)*		EDIC year 18 (2010–2012) (*N* = 1,284)*	
	INT	CON	INT	CON	INT	CON
n	711	730	698	717	620	597
Complications						
Eye						
Retinopathy levels (%)						
No retinopathy (10/10)	49.0	51.8	28.3	17.3	10.7	4.7
Microaneurysm only (20/≤20)	35.0	27.8	39.7	32.1	36.9	26.8
Mild NPDR (35/≤35)	11.6	15.2	21.2	28.5	21.9	18.3
Moderate NPDR (43/≥43–53/53)	4.5	5.1	8.2	16.5	16.5	19.6
Severe PDR or worse (53/<53+)	0	0.1	2.6	5.4	14.7	30.7
Renal*						
AER (%)						
0 to <30 mg/24 h	88.3	90.0	89.8	82.2	81.5	75.1
30 to <300 mg/24 h	11.7	10.1	8.5	12.4	14.2	17.0
≥300 mg/24 h or ESRD	0	0	1.4	5.4	4.3	7.9
eGFR (mL/min/1.73 m²)	126.0 (13.9)	126.2 (14.6)	116.5 (13.0)	117.8 (13.7)‡	93.3 (18.1)	91.7 (20.1)
Sustained eGFR <60 mL/min/1.73 m² (%)	0	0	0.1	0.4	3.2	5.3
Neuropathy						
Confirmed clinical neuropathy (%)	6.8	5.6	9.3	16.2	23.6	32.7‡

Tight control did not guarantee positive outcomes

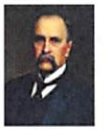
18 people

10 people

65 people

DCCT = Diabetes Control and Complications Trial
EDIC = Epidemiology of Diabetes Interventions and Complications

Diabetes Care 2014;37:9-16



"The good physician treats the disease; the great physician treats the patient who has the disease"

- Sir William Osler

Key Principle to Remember

"People don't care how much you know until they know how much you care."

-Theodore Roosevelt

Contact Information

- **Community Care of North Carolina (CCNC)**
  - State-contracted, public-private partnership made up of regional networks
  - Manages approximately 80% of state's Medicaid program
  - Provides cooperative, coordinated care for patients through Medical Home model
- **Carolina Community Health Partnership (CCHP)**
  - One of fourteen networks across the state
  - Serves Cleveland and Rutherford counties
  - Purpose: Provide care that is patient-focused, provider-driven, community-based, and cost-effective
- **More information available at www.communitycarenc.org**

Community Care of North Carolina
Carolina Community Health Partnership

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