<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
</tr>
</thead>
</table>
| 8:00-8:05AM  | Opening Remarks                                                          | Kristi Hall, MA, BS, CCM  
Rocky Mountain Health Plans                                                                 |
| 8:05-9:05AM  | Perspective Is the Best Medicine: *A Prescription for Less Stress and More Success* | David Glickman  
*Healthcare Humor*  

Just look around the average primary care practice and you’ll see most employees dealing with lots of stress. Well, the good news is that there’s a successful strategy to approach these challenges. Hall of Fame Speaker David Glickman will show you how by simply changing your perspective you’ll experience a profound way of handling these frustrations. And this program isn’t so much a traditional speech as it is a full-blown, high-energy one-man show. It’s got observational humor, funny visuals, and hilarious song parodies. Even virtually, you’ll be laughing and learning! |
| 9:05-9:15AM  | Break                                                                    |                                                                                                  |
| 9:15-9:45AM  | Care Planning From the Patient Perspective                               | Coire Walker  
*Salud Family Medicine*  
Tracy Arens, RN  
*Mercy Family Medicine*  
Mariah  
*Patient at Mercy Family Medicine*  

During this session, two care managers from opposite ends of the state will share patient perspectives on the care planning process. Care managers will also share what it was about the care plan process that positively influenced the health of their patient, how care planning has allowed patients to take an active role in their health, and what pieces patients have found to be the most valuable.  
You will also be fortunate enough to hear from a patient on their perspective of a care plan, their experience with care management, and suggestions for how care managers can engage patients in care management, as well as ways to build a trusting relationship with patients. |
| 9:45-9:55AM  | Break                                                                    |                                                                                                  |
| 9:55-10:25AM | Cultural Considerations in Care Management                               | Eve Presler, MA, MSW  
*Rocky Mountain Health Plans*  
Roni Morales  
*Mountain Family Health Centers*  

This session will explore some common cultural differences in our community and provide practical tips to promote and integrate cultural awareness in your practice’s care management services. Culture is a multifaceted concept. It includes people’s beliefs, values, behaviors, and ways of understanding their world. In medicine, managing cultural differences, including customs, is essential to providing high-quality health care. Culture influences patients’ responses to wellness and prevention, as well as illness and treatment. Thus, it is imperative that care managers are familiar with the cultural beliefs of the populations they serve; lack of cultural awareness can cause unintended consequences for the patient, such as poor adherence to treatment plans, fragmentation and disconnects in care, medical errors, and patient dissatisfaction. |
<p>| 10:25-10:35AM| Break                                                                    |                                                                                                  |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:35–11:20 AM</td>
<td>Empowering Patients Through Care Management to Reduce Unnecessary ED Utilization</td>
<td>Jenell Hilderbrand, BSN, RN, Erin Hatter, BSN, RN, Diane Carnoali, LCSW, Lisa Clark, BSN, RN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internal Medicine at Valley View, Internal Medicine Associates</td>
</tr>
<tr>
<td></td>
<td>Care managers are uniquely positioned to improve effective communication between the patient and the medical home. In this panel discussion, practices will share strategies around how care managers empower patients to understand the appropriate steps to take when making the decision to go to the Emergency Department. The perspectives of our panelists will include care managers working within internal medicine clinics and discharge planning during/after an inpatient hospitalization. Panelists will discuss how strong relationships with high-risk patients can reduce unnecessary ED utilization and how care management services can improve a patient’s ability to self-manage their chronic illness. Participants can expect to come away with strategies and resources they can implement in their practices to educate and encourage patients to take action in their journey toward improved health.</td>
<td></td>
</tr>
<tr>
<td>11:20–11:30 AM</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>11:30–11:50 AM</td>
<td>Nuts and Bolts of Care Management at Rocky Mountain Health Plans</td>
<td>Sandy Dowd, Violet Willett, MHA, Kila Watkins, RN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rocky Mountain Health Plans</td>
</tr>
<tr>
<td></td>
<td>During this session, you will hear from the leaders in the Care Management Department at Rocky Mountain Health Plans. They will provide attendees insight into the care management and utilization management program at RMHP. You will hear how their care management program differs from the program at your primary care practice, but also share ways to coordinate with RMHP care managers, and who to contact with questions. This session is geared towards care coordinators and staff working in primary care.</td>
<td></td>
</tr>
<tr>
<td>11:50–12:00 PM</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>12:00–12:45 PM</td>
<td>Helping Your Patients With Diabetes: Optimizing Your Approach</td>
<td>Dr. Carol Greenlee, FACP, FACE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rocky Mountain Health Plans</td>
</tr>
<tr>
<td></td>
<td>Diabetes can be overwhelming for both the patient and the health care team as well as the health care system. Care managers have a wonderful opportunity to help those struggling with diabetes, easing the burden and impact of this challenging condition. However, how you approach this work can determine whether you are effective or simply frustrated in your efforts. Learn how to overcoming misperceptions and knowledge gaps can help optimize your approach.</td>
<td></td>
</tr>
<tr>
<td>12:45–12:55 PM</td>
<td>Closing Remarks</td>
<td>Kristi Hall, MA, BS, CCM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rocky Mountain Health Plans</td>
</tr>
</tbody>
</table>
CARE PLANNING FROM THE PATIENTS PERSPECTIVES

October 23, 2020
# MEET OUR PANELISTS

<table>
<thead>
<tr>
<th>Tracy Arens, RN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mercy Family Medicine</strong></td>
</tr>
<tr>
<td><em>Durango, Colorado</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mariah</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient at Mercy Family Medicine</strong></td>
</tr>
<tr>
<td><em>Durango, Colorado</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coire Walker</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salud Family Health Centers</strong></td>
</tr>
<tr>
<td><em>Fort Collins, Colorado</em></td>
</tr>
</tbody>
</table>
• Care Management – A set of proactive activities that aims to improve health outcomes and reduce utilization, harm, and waste.

• Care Manager – An individual in a primary care practice that is integrated into the practice to proactively manage, monitor and coordinate care.

• Care Plan - A care plan is a mutually agreed upon and documented plan of care based on the patient’s goals, preferences, and values.
How do you approach the care planning process?

Patient involvement in the care planning process.
Valuable components of the care plan

Building trusting relationships
Impact of COVID-19
Taking an active role.

Improving the care planning process.
Cultural Considerations for Care Management

Considerations with Native Americans

October 23, 2020
RAE1 Membership

RAE1 Membership 229,994

2,056 individuals self-report as Native American

0.89%

Other factors – per cap, descendants, tribal affiliation
Accountable Health Communities Model (AHCM)

What the data shows

Need Comparison by Race/Ethnicity

Of each race that took the screening, the percent that were positive for the need:
- Asian
- White
- Unknown
- Hispanic/Latino
- Other
- Black/African American
- Hawaiian/Other Pacific Islander
- More than one race selected
- American Indian/Alaskan Native
Schema – Mental Models
What I’ve heard Members say…

My provider doesn’t like me.
Defined by: my provider won’t look me in the eye and doesn’t touch me.

The nutrition lady doesn’t know anything.
Defined by: fry bread and mutton aren’t on the list of foods she gave me to eat.

You all have an agenda.
Defined by: What do you know about me and my culture, what you want me to do isn’t the way we do things.
Validate Your Assumptions

- Check in with a patient who is new to you by asking/stating “some people I’ve worked with have expressed concerns about…”

  “what do I need to know about you to be most effective in serving you?”

- Use Motivational Interviewing
  - open ended questions
  - affirmations
  - reflective listening
  - summarizing
## Considerations

<table>
<thead>
<tr>
<th>Topic</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical Trauma</td>
<td>Fear and Mistrust</td>
</tr>
<tr>
<td>Inclusivity</td>
<td>Environment reflective of cultural</td>
</tr>
<tr>
<td>Belief Systems</td>
<td>Traditional vs. Mainstream</td>
</tr>
<tr>
<td>Access to Resources</td>
<td>Financial, Access to Care Environmental, Social, Spiritual</td>
</tr>
<tr>
<td>Language</td>
<td>Formal vs. Casual AND English proficiency</td>
</tr>
</tbody>
</table>
Other Considerations

Providers:
Who else does the patient see?

Specialty Care:
Do treatment recommendations make sense?

Medications:
Efficacy
Contraindications

Relationships:
10% of the outcome is from the intervention
90% is based on the relationship
“If you don’t understand your patients’ health beliefs or decision making, you need to learn more about where they come from.”

Melissa Lewis, PhD
University of Missouri School of Medicine
What is your position within your organization or leverage change?
Resources

Working With Indigenous/Native American Patients
Prepared by Mary Hasbah Roessel, M.D

Behavioral Health Services for American Indians and Alaska Natives
For Behavioral Health Service Providers, Administrators, and Supervisors
https://store.samhsa.gov/sites/default/files/d7/priv/tip_61_aian_full_document_020419_0.pdf

Programs for American Indians and Alaska Natives
https://www.colorado.gov/pacific/hcpf/programs-american-indians-and-alaska-natives#:~:text=Health%20First%20Colorado%20and%20CHP%2B%20are%20free%20or,not%20have%20to%20pay%20co-pays%20or%20enrollment%20fees.
Thank You! AHEHEE’ Tog;oiak
Cultural Care Management for Latinx/Hispanic Community

Roni Morales Advocate and Complex Care Specialist
Who We Are
Diversity Iceberg

Race
Ethnicity
Gender
Age

Physical Abilities/Qualities

Parental Status  Native born/non native  Beliefs  Values
Military Experience  Work Background  Thinking Styles

Religious Beliefs  Culture  Smoker/Non smoker
Geographic Location

Education  Socio-economic Status

Functional Specialty
Marital Status

Sexual Orientation
Social Determinants of Health

- Social factors: income, education, housing, employment, environment
- Political factors: access, racism/discrimination, underrepresentation
- Cultural and psychological factors
Communication With Health Providers: Adults

Adults who had a doctor’s office or clinic visit in the last 12 months who reported poor communication with health providers, by race/ethnicity and by income among Hispanics, 2002-2012.

Source: Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, 2002-2012.
Values

- Familismo
- Respect and Trust
- Personalismo
- Faith
- Espiritismo
- Healers
- Personal Space
Barriers

- Lack of healthcare coverage
- Language
- Provider Bias
- Stigma
- Poverty
- Legal Status
Spell and pronounce names correctly
Ask language preference
Use qualified interpreters
Follow their cues
  Body language
  Tonality
Identify decision maker
Formality with elderly patients
Encourage family to ask questions
Listen
What do you think caused your problem?

Do you have an explanation for why it started when it did?

What does your sickness do to you; how does it work?

How severe is your sickness? How long do you expect it to last?

What problems has your sickness caused you?

What do you fear about your sickness?

What kind of treatment do you think you should receive?

What are the most important results you hope to receive from this treatment?
What is the biggest challenge you see in your organization’s pursuit of gender, racial/ethnic, and/or socio-economic equity and what is your recommendation for how you can best address this challenge?
When people rely on surface appearances and false racial stereotypes, rather than in-depth knowledge of others at the level of the heart, mind and spirit, their ability to assess and understand people accurately is compromised.

James A. Force
Resources and References

Chartbook for Hispanic Health Care 2014

Harvard University Implicit Bias Tests:
https://implicit.harvard.edu/implicit/takeatest.html

How Equity and Equality Are Different:
www.premiertalentpartners.com/how-equality-and-equity-are-different/
EMPOWERING PATIENTS THROUGH CARE MANAGEMENT TO REDUCE UNNECESSARY ED UTILIZATION

PRACTICE PANEL DISCUSSION
MEET OUR PANELISTS

Lisa Clark, BSN, RN

Jenell Hildebrand, BSN, RN

Erin Hatter, BSN, RN, OCN

Diane Carnoali, LCSW
ED Overutilization

Non-emergent care

Exacerbation of an uncontrolled chronic condition
Ten most common conditions treated in an ED that could be treated in a primary care setting:

- Bronchitis
- Cough
- Dizziness
- Flu
- Headache
- Low back pain
- Nausea
- Sore Throat
- Strep Throat
- Upper Respiratory Infection

UnitedHealth Group. (2019)
CHRONIC DISEASE IS A CONTRIBUTOR TO OVERUTILIZATION

CHRONIC DISEASES IN AMERICA

6 IN 10
Adults in the US have a chronic disease

4 IN 10
Adults in the US have two or more

THE LEADING CAUSES OF DEATH AND DISABILITY
and Leading Drivers of the Nation’s $3.3 Trillion in Annual Health Care Costs

HEART DISEASE  CANCER  CHRONIC LUNG DISEASE  STROKE  ALZHEIMER’S DISEASE  DIABETES  CHRONIC KIDNEY DISEASE

NCCDPHP
THE ROLE OF DISCHARGE PLANNING IN THE HOSPITAL AND ED
COORDINATION IS KEY

<table>
<thead>
<tr>
<th>Assisted Living Communities</th>
<th>Address 1</th>
<th>Address 2</th>
<th>Address 3</th>
<th>Address 4</th>
<th>Address 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Lodge at Grand Junction</td>
<td>2636 Patterson Blvd, Grand Junction 81506</td>
<td>120 970-465-2855 $4,200 36 5m</td>
<td>116 970-243-7224 $2,800 76 5m</td>
<td>116 970-234-7224 $2,800 61 5m</td>
<td>116 970-234-7224 $2,800 61 5m</td>
</tr>
<tr>
<td>The Retreat at Harbor Cove</td>
<td>2835 Patterson Rd, Grand Junction 81506</td>
<td>116 970-243-7224 $2,800 76 5m</td>
<td>116 970-243-7224 $2,800 61 5m</td>
<td>116 970-243-7224 $2,800 61 5m</td>
<td>116 970-243-7224 $2,800 61 5m</td>
</tr>
<tr>
<td>The Retreat at Palisade</td>
<td>3780 Heritage Ln, Palisade 81526</td>
<td>116 970-234-7224 $2,800 61 5m</td>
<td>116 970-234-7224 $2,800 61 5m</td>
<td>116 970-234-7224 $2,800 61 5m</td>
<td>116 970-234-7224 $2,800 61 5m</td>
</tr>
</tbody>
</table>

https://www.seniorsbluebook.com/market/colorado/
800-201-9989
Platform provided to RMHP Practices at no cost! Contact your QIA if you are interested in more information about implementing PAM in your practice.

https://www.heart.org/en/health-topics/high-blood-pressure
ANALYZING AND MEASURING ED AND HOSPITAL UTILIZATION

RMHP Attribution Reports

- CPC+
- RMHP Masters
- Prime

NEED CLEARER PICTURE OF MASTERS REPORT TEST
Rocky Mountain Health Plans Care Coordination Overview

Sandy Dowd Director of Care Management
Violet Willett MHA, Manager of Care Coordination
Kila Cyphers BSN, RN Clinical Manager
Rocky Mountain Health Plans Region 1

- NORTHWEST COLORADO COMMUNITY
  - Moffat
  - Routt
  - Jackson
  - Grand
- NORTHERN COLORADO COMMUNITY
- WESTERN MOUNTAIN COMMUNITY
  - Eagle
  - Summit
  - Garfield
- MESA COUNTY
  - Delta
  - Gunnison
  - Montrose
  - Ouray
  - San Miguel
- MIDWESTERN COLORADO COMMUNITY
  - Montrose
  - Ouray
  - San Miguel
- SOUTHWEST COLORADO COMMUNITY
  - Hinsdale
  - San Juan
  - Montezuma
  - La Plata
  - Archuleta
## Our Care Coordination Teams

<table>
<thead>
<tr>
<th>RMHP Care Coordinators</th>
<th>Integrated Community Care Teams</th>
<th>Partnerships with Community Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMHP has our own team of Care Coordinators in various geographic communities throughout the state</td>
<td>RMHP partners with existing Community Care Coordination teams to perform our Care Coordination activities.</td>
<td>RMHP partners share a data platform and have granted access to CMHCs, providers, Grand Junction Housing Authority and Garfield County Human Services.</td>
</tr>
</tbody>
</table>
Care Coordination Teams Map
Care Coordination Definitions

Two Types of Care Coordination

Deliberate
- Referrals
- Telephonic/Electronic Communication
- Educational Materials

Extended
- Intense/Prolonged Assistance
- Face to Face Activity
- Care Planning
Care Coordination

Clinical Events
- Inpatient Admissions
- Discharges
- Behavioral Health
- Emergency Department
- Crisis Line Call

Special Populations
- Complex
- High Risk Pregnancy
- Criminal Justice
- Foster Children
- COUP

Referrals
- One Call Line
- Inbound Calls
- Providers
- Self-Referral
- Community Organizations

Community Outreach
- Homeless Shelters
- Food Banks
- Parole Office
- Halfway House
RMHP Care Coordinators

RN Case Managers
Work directly with our population with the highest and most complex Physical Health Needs
Available for staffing and consultations with team

BH Professionals
Work collaboratively with our UM staff, inpatient facilities and the CMHCs, starting at the point of hospital admission, to begin timely discharge planning and coordinate Transitions of Care

Social Workers
Assess and screen for Social Determinants of Health
Connect members with Community Resources for Social Needs

Outreach Coordinators
General Care Coordination and member education
Connect members with Community Resources
Spanish Speakers available
RMHP Pyramid Approach

ROCKY MOUNTAIN HEALTH PLANS - POPULATION STRATIFICATION

KEY:
Blue = State Pyramid & Corresponding Campaigns (Members Active in Campaigns 5/1/19-4/30/20)
Brown = NCQA & Corresponding Campaigns (Members Active in Campaigns 5/1/19-4/30/20)
Black = Member Data 05/01/2019-4/30/2020 Data Refreshed as of 8/14/20

Notes:
- Members will appear in only one category and they will appear in the highest category.
- Each tier looks at distinct Member counts. However, total Members are shown by line of business and Members are counted in each line of business. If a Member is double-covered with Medicaid and DSNP, but they have 12 or more ER Visits, they will counted once in the 12 or more ER Visits (regardless of Line of Business) but be counted twice in the Member counts (Medicaid line + DSNP line).

1 - Complex Campaigns:
- Complex General & PWD (3830)
- Complex Foster Care (102)
- Complex Newborn (108)

2 - Emerging Complex Campaigns:
- BH Discharges (1030)
- Larimer BH Referrals/Admits (648)
- Western Slope BH Referrals (100)
- Discharges (QHN & Manual) (13494)
- OB Discharges (Include Manual and QHN) (765)
- DSNP (1232)
- Mercy Link High ER (36)
- ER (Including Manual and QHN) (50860)
- Monitoring (362)
- CMHCs (518)

3 - Condition Management Campaigns:
- CJI (Criminal Justice Involved) (994)
- Asthma High Risk (203)
- Diabetes High Risk (1600)
- OB High Risk Prenatal (1623)

4 - Safety and Outcomes Across Settings: Improving Continuity of Care Campaigns:
- Referrals Including BH Referrals (4508)
- COUP including Rx/ER (913)
- Med-Adherence (297)
- MRP Review (548)

4 - NCQA – Patient Safety and Outcomes Across Settings (Improving Continuity of Care)
Less than $25k for the following:
- COUP, DSP, PolyRx 5+, Opioid MED>=125, Med-Adherence < 60%, inPt LOS 30+ Day Discharges,
inPt Discharges, SDOH, Long Term Phys Dx, Foster Care, Disabled Flag Essette, Disabled Eligibility
Strat #4 Total = 14,694/5.88%
Disease Management Programs

- **Diabetes**
  - A1C>9
  - Diabetes related hospitalization

- **COPD**
  - ED visits/hospitalizations with COPD Diagnosis

- **Pregnancy**
  - High Risk Pregnancy
  - EPSDT Postnatal

- **Drug Safety**
  - Aberrant Drug Behaviors
  - MAT

- **COUP**
  - High ED Utilization
  - Polypharmacy
Preauthorization

- Specific list of procedures, treatments and services
- Provider portal automated process
- Immediate response of approval or pend
- Average turnaround time 5 days
- RNs and Medical Directors review requests

Concurrent Review

- All hospital/SNF/rehab/residential admissions
- RN and BH professionals across the State
- Daily weekday reviews
- Medical Director involvement
Questions?
Helping Your Patients with Diabetes: Optimizing Your Approach

October 23, 2020

Carol Greenlee MD FACP
Diabetes Overwhelmus

- Foot exams
- UMACR
- Non-Adherent patients
- Hypoglycemia
- Pills
- Meters
- BMI
- Ketones
- Lipids
- A1c
- Eye Exams
- Injections
- Blood Pressure
- Test Strips
Expanding your Mental Model of Diabetes

Some things to consider …

Misperceptions about diabetes
Why won’t your patients do what you tell them to do?
Why do your patients always seem to get worse?
What does the A1c tell you?
What’s so bad about low blood sugar?
What is your mental model of diabetes?

What are Mental Models?

• A mental model
  • provides the filters through which the user see the world
  • is based in belief as opposed to being a factual concept
  • is an explanation of someone's thought process about how something works in the world – how they perceive the world

“Mental models are deeply held internal images of how the world works, images that limit us to familiar ways of thinking and acting. Very often, we are not consciously aware of our mental models or the effects they have on our behavior.”

- Peter Senge

 “…mental models determine what we see…” Senge
What is your mental model of people with diabetes?

Are any of these familiar?

- “Many of those who have diabetes are noncompliant and don’t take care of themselves.”
- “People with diabetes cause themselves to become ill, lose limbs, and disregard their medication/diet regimen.”
- “Diabetes is a disease of gluttony and sloth – they bring it on themselves”
- “They don’t do what they are supposed to – they are not even trying to get better”
- “They just don’t care...their noncompliance, nonadherence, whatever it is, is so frustrating, why don’t they just do what I tell them to do?”

These are often “taught” or passed on to us in our training or practice.

What do you think the effects or impacts are of these mental models?
What is Stigma?

- A set of negative and often unfair beliefs that a society or group of people have about something – a negative stereotype
  - Something that takes away from one's character or reputation.
- Stigma is a mark of disgrace which results from the judgment by others.
  - When an individual is labelled by their illness, they experience judgment and prejudice.
  - Stigma brings experiences and feelings of shame, embarrassment, distress, hopelessness and reluctance to seek or accept help.

- Patients are influenced by stigma (expectations impact behavior) \(\rightarrow\) Guilt, shame, blame, embarrassment, futility, isolation
  - Higher BMI
  - Higher A1C
  - Higher self-reported blood glucose variability (more fluctuations up and down)
Why won’t your patients with diabetes do what you tell them to do?

- Starting point: **No one wants poor control, no one wants diabetes complications** – so you can rule that out as the reason

- Other reasons
  - Perceived Worthlessness
    - **Pointlessness/futility** *(what good does it do?)*
    - **Hopelessness**
  - Too Many Personal Obstacles
    - **Diabetes Distress**
    - Depression
    - Medication Misperceptions/Fears
    - Lack of education and Self management skills
    - Environmental (“Life”) – time, costs, competing priorities
      - Patient Context /“Needs & Circumstances”
  - The Absence of Support & Resources
    - Diabetes slips to the background (serious but not urgent)
    - Infrequent supportive interaction with HC team ("touches")
Diabetes Distress

- Diabetes Distress is part of the experience of diabetes for many patients;
  - 48% in the 3D Study met criteria for high distress over 18 months
  - Even at low levels, diabetes distress is significantly related to glycemic control and behavioral management - but DD also occurs in people with “good control”

From: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2797978/
Diabetes Distress (DD)

- Diabetes distress is *not* clinical depression - It is **emotional distress** that captures
  - the worries, concerns and fears among individuals struggling with a progressive and demanding chronic disease such as diabetes including
    - the emotional burden of self-management,
    - threats of complications and potential loss of functioning

The 7 major sources of DD

1. **Powerlessness**  
   (*hopelessness* - *pointless*)
2. **Negative Social Perceptions**  
   (*negative judgments of others*)
3. **Physician Distress**  
   (*don’t get help I really need*)
4. **Friend/Family Distress**
5. **Hypoglycemia Distress**
6. **Management Distress**
7. **Eating Distress**
Fear of Complications → large contributor to Diabetes Distress

The Language of Diabetes Complications: Communication and Framing of Risk

Reviewed messaging in magazines for people with diabetes (such as Diabetes Forecast) from American, Canadian, Australian Diabetes Associations

• Majority had **loss-framing** *(e.g. “having diabetes is the leading cause of blindness”)* with few if any **risk reduction strategies** offered *(often scare tactics) → hopelessness*

  vs

• Many fewer had **Gain-framing** *(“early diagnosis & treatment of diabetic retinopathy can prevent up to 98% of severe vision loss”)* plus **strategies** - “get annual eye exam” → **more effective** *(evidence-based hope – how to stay healthy)*
Words Matter:
Study shows importance of language choices in diabetes care

- Health care providers who use "negative terms," such as "nonadherent" or "noncompliant" may create a disconnect leading to negative health outcomes for diabetes patients
- Stereotypes or language choices that place blame can cause patients to disengage with health services and develop diabetes-related distress and sub-optimal diabetes self-management
- The effects of being referred to as “a diabetic” vs “a person with diabetes (PWD)”

Carefully chosen language can have a positive effect
- Researchers recommend using more appropriate language to support patients' diabetes self-management and psychosocial well-being – on the same side - fighting for, not against
  - Avoid “bad-good” – use “safe” or “healthy” range/level BG, BP, LDL, etc.
  - Focus on helping PWD stay healthy - Provide “Evidence-Based Hope” … and strategies
    - “Research shows that with good care, odds are pretty good you can live a long and healthy life with diabetes”
    - “There are things we can do together to help you stay healthy/prevent complications with diabetes” [or prevent from getting worse]
How to Help Overcome Futility & Hopelessness

- Motivational Interviewing won’t work well, if at all, unless the patient moves out of the sense of hopelessness, futility, worthlessness
  - if they believe that no matter what they do, bad things are going to happen; that they are doomed and nothing they do makes a difference, then why even try… it is all futile
- **Be curious, not furious** (ask instead of tell…listen …seek first to understand)
- You may need to invest in providing that “evidence-based hope” - Help them discover that their efforts make a difference – Patients often have “**Perceived Treatment Inefficacy**”
  - Establish **Treatment Efficacy**
    - Discovery Learning (e.g. structured BG testing or professional CGM study) – (“let’s see what happens when you take a walk”; “see what happens if you eat XX vs YY”)
    - Uncover therapeutic heterogeneity (“let’s see if (how well) this med/exercise works for you”)
      - Not all individuals respond or respond the same to every medication or treatment – involve the patient
      - Create positive mindset (a sense of control, having input vs being told what to do, generating “ownership”)
Ownership vs Buy-in

- "Ownership" is when you own or share the ownership of an idea, a decision, or an action plan; it means that you have participated in its development, that you chose on your own accord to endorse it. It means that you understand it and believe in it. It means that you are both willing and ready to implement it.

- "Buy-in" is the opposite: someone else or some group of people has done the development, the thinking, the cooking and now they have to convince you to come along and implement their ideas/plans.
Diabetes Challenges - Help from Technology

- Continuous Glucose Monitoring (Sensor) (CGM)
- Professional CGM or Personal CGM
What is Diabetes?

- Not a “moral” disease (not a condition of “bad” people)
  - much “judgement” surrounds diabetes (stigma)
- Diabetes is a *metabolic* disease
  - Diabetes is very complex in what causes it & how to manage it
    - Multiple different genetic influences
      - Fat distribution; effect of fat accumulation on cell function and insulin resistance
      - Pancreas (Beta cell) capacity (ability to make extra insulin); risk for complications
    - Multiple different environmental influences
      - Including the microbiome, sleep, type of food, activity, adverse childhood events, pollutants
  - There is significant **Response Heterogeneity** (*not every patient responds the same to medication, diet or activity*)
  - **Multiple body systems affected**
  - Most forms of diabetes **progress over time (get worse)** (due to pancreas making less & less insulin)

“Diabetes is hard”
What is Diabetes?

The simple version –
all diabetes is due to not enough insulin

• Diabetes is a disease that occurs when blood glucose (blood sugar) is too high. (Glucose is the body’s main source of energy.)
  • Insulin, a hormone made by the islets in the pancreas, helps glucose get into cells to be used for energy.
  • If the pancreas doesn’t make enough—or any—insulin, then glucose stays in (& builds up in) the blood and doesn’t get into cells.
  • Having too much glucose in the blood (and not enough inside cells) can cause health problems.

There are many types (causes) of Diabetes
• Type 1
• Type 2
• Monogenic
  • MODY
  • Neonatal
• Pancreatogenic
• Hepatogenic
• Secondary
  • Hormonal disorders (Cushing’s, Acromegaly, etc.)
  • Medications (steroids, anti-psychotic meds (atypical))
• Other

Important to Know:
Almost every form of diabetes progresses (gets worse) over time – usually due to making less & less insulin (it is not the patient’s failure)
Type 1 Diabetes - “Immune-mediated diabetes”

- Previously called “Juvenile” & Insulin-Dependent Diabetes
  - Not just in children or thin individuals
    - Increasing “adult onset” T1DM – as late as the 9th decade (not everyone with T1DM is childhood onset)
    - BMI at time of diagnosis (not everyone who gets T1DM is thin)
      - 20% BMI >30
      - 45% BMI 25-29.9
      - 30% BMI 20-24.9
      - 5% BMI <20
  - Auto-Immune Disorder
    - Many different genes + environment
    - Immune system attacks the Beta cells in pancreas (the “islets”) & destroys them
    - Absolute Insulin deficiency $\rightarrow$ need to replace insulin
      - Replacing Insulin is complex (Insulin from outside $\rightarrow$ works different than Insulin from pancreas)
      - Insulin requirements vary with sleep, exercise, stress, illness, food, growth, renal function, menstrual cycle, temperature, etc.
    - Without Insulin $\rightarrow$ Diabetic Keto-Acidosis (DKA)
    - Too much Insulin $\rightarrow$ Hypoglycemia (low blood sugar)
Type 2 Diabetes

- Now the most common form of Diabetes - 90-95% of Diabetes
- Due to **insulin resistance** causing the body to need more insulin combined with **inability to produce sufficient insulin to compensate** for the increased need
  - Multiple different gene combinations
  - Multiple environmental/lifestyle factors
    - Adiposity (especially visceral fat & fat in organs) - But **not all people with T2DM are obese**
    - Diet composition (saturated fats, refined carbs) - Adverse effect on Beta Cells as well Insulin Resistance
  - Sedentary lifestyle
  - Age related – reduced Beta Cell function
    - (worn out pancreas- makes less insulin)
  - ACEs/stress; air pollution, etc.

Not all T2DM is the same

- Not all meds work for all T2DM
- This adds to the complexity
- Natural history is to progress – make progressively less insulin
Natural History of Diabetes is to Progress ("get worse")
Ongoing loss of Beta Cells → More Deficient in Insulin
What is high blood glucose? How is Diabetes Diagnosed?

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>A1C (percent)</th>
<th>Fasting plasma glucose (FPG)</th>
<th>Oral glucose tolerance test (OGTT)</th>
<th>Random plasma glucose test (RPG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>below 5.7</td>
<td>99 or below</td>
<td>139 or below</td>
<td></td>
</tr>
<tr>
<td>Prediabetes</td>
<td>5.7 to 6.4</td>
<td>100 to 125</td>
<td>140 to 199</td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>6.5 or above</td>
<td>126 or above</td>
<td>200 or above</td>
<td>200 or above</td>
</tr>
</tbody>
</table>

What is A1c?

Hemoglobin inside RBC - The average RBC life span is 3 months

“the memory test”

The HbA1c test reports the amount of HbA1c as a proportion of the total haemoglobin

A1c correlates with & predicts complications

1% point reduction lowers the risk of serious complications by 40-50%
Chronic (Long-term) Complications

The longer the duration of diabetes & the higher the blood sugar — the higher the risk of complications:

- **Cardiovascular disease**
  - coronary artery disease /heart attack
  - stroke
  - heart failure (CHF)
  - Peripheral Artery Disease (PAD)
- **Nerve damage (neuropathy)**
- **Kidney damage (nephropathy)**
- **Eye damage (retinopathy)**
- **Dementia/Alzheimer's disease**
- **Hearing loss**

**The Good News**

Complications Can be Prevented or Reduced

1% point reduction lowers the risk of serious complications by 40-50%
Some caveats for A1c for *individual* patients

- **Assay Accuracy** (how accurately reflects actual average glucose)
  - Anything that lengthens or shortens the RBC lifespan or alters glycosylation rate or interferes with assay
    - Interfering substances/conditions – e.g. falsely elevated A1c with iron deficiency
    - Age and ethnic/race difference – A1c higher for average BG

- **Assay Precision** (how precise or reproducible is the result)
  - Having a *target range* is probably better than a cut-point

- **Glucose Variability** (daily ups & downs) not represented

- **Short-term change** in glucose control not reflected
  - Start prednisone or atypical anti-psychotic med that raise BGs
  - Start new diet, exercise or medication that lowers glucose levels

- **Need for individualized targets**
  - Based on benefits vs risk of tight control
Individualized glucose targets

Hypoglycemia in Patients with Diabetes

- Hypoglycemia defined as blood glucose <70 for people with diabetes = "Low Blood Sugar"
  - **Level 1**: BG <70 and >54
  - **Level 2**: BG <54
  - **Level 3: Severe Hypoglycemia (SH)** defined as altered mental &/or physical status needing assistance to treat or <40 mg/dl
    - Asymptomatic Hypoglycemia - Hypoglycemic Unawareness defined as not getting the adrenergic warning symptoms of hypoglycemia
    - **Pseudo-Hypoglycemia** - Some patients, especially with T2DM & poorly controlled DM, get symptoms of hypoglycemia with a blood sugar >70
    - **Fear of Hypoglycemia** – can be cause for high blood sugars and/or roller-coaster blood sugars

“But most of our patients have T2DM – is hypoglycemia still a concern?”
Hypoglycemia - the stats

- Second leading cause Adverse Drug Events
  - Patients on insulin experience on average of 24 hypoglycemic episodes per year, ranging from mild to severe
  - \(\sim 300,000\) ED visits annually for Hypoglycemic events for T1DM and T2DM
  - >30,000 Hospitalizations per year for hypoglycemia – associated with
    - 18.1% 30-day readmission rate
    - 5% 30-day mortality rate (up to 30% in elderly patients)
- In the elderly \(\rightarrow 105/100,000\) person-years admissions for hypoglycemia vs \(70/100,000\) person-years for hyperglycemia
  - Lipska study (Yale): From 1999 to 2011 rates of hospital admissions for hypoglycemia have risen by 11.7% in US Medicare beneficiaries.
    - There were 40% more admissions for hypoglycemia than for hyperglycemia over the 12-year period.
    - The 1-year mortality rate after a hypoglycemia admission was higher (22.6%) than the rate after a hyperglycemia admission (17.6%) in 2010.
Hypoglycemia Risk
-in patients taking *Insulin & Insulin secretagogues*

- Intensive or tight control & targets
  - But also risk with A1c >9%

- Risk higher with longer duration of diabetes

- Increased in the elderly
  - especially if cognitive impairment *(vicious cycle)*

- Renal and/or Hepatic Impairment
  - Reduced clearance of insulin and reduced Gluconeogenesis (GNG)

- Medication errors & safety
  - literacy, numeracy, lack of education

- Missed / irregular meals
  - food insufficiency

- EtOH (alcohol), opioids, benzodiazepines
  - Reduced counter-regulatory responses

- Exercise / Increased activity
  - Increased glucose utilization and insulin sensitivity (3days)
Neurogenic response  ➤  Neuroglycopenia

Loss of consciousness

Dizziness Headache ➤ Poor concentration

Difficult or incoherent speech ➤ Sweating

Shivering ➤ Palpitations

Tiredness and Fatigue ➤ Hunger Nausea
Hypoglycemic Effects

- **Neurocognitive effects**
  - cognitive effects & impairment, coma, seizures, brain dead, dementia

- **Increased falls and trauma**
  - Impaired driving/ accidents
  - Fractures, lacerations, Traumatic Brain Injury

- **Increased CVD and Mortality**
  - Acute Ischemia
  - **Atherogenic effects**
    - Pro-inflammatory/ Pro-coagulant
    - Greater at BG 50 than BG 200;
    - Elevated for >7-8 days after event
  - Arrhythmogenic effects
    - “Dead in bed”

Descous C V et al. Dia Care 2010;33:1388-1394
Strongest Risk Factor?

- In patients with T2DM on insulin and/or sulfonylurea meds (glyburide, glipizide, Amaryl -glimepiride) –
what do you think is the leading risk factor for hypoglycemia (low blood sugar)?
Causes of Severe Hypoglycemia

Irregular or Insufficient Food Intake

- Missed / Delayed / Reduced Meals
  - Job demands, travel, meetings, etc.
  - Fasting for tests or procedures
  - Illness (unable to eat or eat less or vomiting)
  - Lack of nutritional knowledge (carbs) (eggs & bacon)
    - Struggles with numeracy (carb counting & insulin dose)
  - Reduced ability to shop for or prepare meals
    - Aging, widower, loss of vision, amputations, etc.
  - Lack of food (food insecurity)
    - Insufficient money or SNAP funds for purchasing food
Hypoglycemia in Patients with Diabetes

- The main focus in diabetes care has been on reducing hyperglycemia and chronic complications due to hyperglycemia (high blood sugar)
  - Tight control advocated
  - Can take up to 9 to 20 years to develop chronic complications of hyperglycemia (youth < elderly)

- Need to consider Benefit vs Risk
  - Risk of Hypoglycemia Event(s) (of having low blood sugar)
  - Risk of Harm from Hypoglycemia (being hurt by the low blood sugar)
    - Living or working alone
    - Driving/ operating heavy equipment /other dangerous work/life exposure
    - Comorbid susceptibility to effects of hypoglycemia
      - e.g. Coronary artery disease, epilepsy, dementia
    - Can also cause complications (worse CVD, dementia, etc.)
Does your care team have an approach to help prevent hypoglycemia and harm from hypoglycemia?

**Clinician & Care Team Education**

- Awareness that people with T2DM can have serious hypoglycemic & harm from hypoglycemia
- Symptoms and consequences
  - How to recognize hypoglycemia
  - When to think about it and ask about it
- How to treat hypoglycemia
- How to teach patients & families / caregivers about hypoglycemia
- Appropriate targets (risk vs benefit)
- Medication management (vs just medication reconciliation)
ADA standards of care for Hypoglycemia

- Recommendation - Counsel patients to treat hypoglycemia with fast-acting carbohydrate
  - **Pure Glucose (15-20 g) is the preferred treatment** for the conscious individual with hypoglycemia (glucose alert value of <70) although any form of carbohydrate that contains glucose may be used.
  - Fifteen minutes after the treatment, if SMBG shows continued hypoglycemia, the treatment should be repeated.
  - Once SMBG returns to normal, the individual should consume a **meal or snack** to prevent recurrence of hypoglycemia – *ongoing insulin activity or insulin secretagogues*
Sources of Carb (want “rapid” Carbs for fast absorption)

Great Sources of Carbohydrate for a Low Blood Sugar

- Glucose gels (cake gels) (absorbed from lining of mouth)
  - Glucose tabs
  - Smarties
  - Pixie Sticks

- These are all dextrose and glucose and are broken down and in your system within 10 minutes. Dextrose is very similar to glucose in terms of molecular structure, which makes it a fast source of carbohydrate for a low.

Pretty Good Sources of Carbohydrate for a Low Blood Sugar

- Juice box
- Soda
- Dried fruit
- Jellybeans

- These sources can take at least 20 minutes to break down and get into your bloodstream (e.g. Jellybeans have a lot of additives and fillers, which your body has to break down first, before digesting the carbohydrates)

Not-So-Great Sources of Carbohydrate for a Low Blood Sugar

- Milk
- Peanut Butter Sandwiches
- Chocolate bars
- Cookies
- Ice cream

- These sources of carbohydrates are loaded with fats and proteins, which will slow down the digestion process and delay your body’s ability to get that glucose into your bloodstream. * in T2DM protein can further increase insulin release
**Diabetes in Older Adults - Endocrine Society Guidelines 2019**

<table>
<thead>
<tr>
<th>Overall Health Category</th>
<th>Group 1: Good Health</th>
<th>Group 2: Intermediate Health</th>
<th>Group 3: Poor Health</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient characteristics</strong></td>
<td>No comorbidities or 1-2 non-diabetes chronic illnesses* and No ADL(^c) impairments and (\leq1) IADL impairment</td>
<td>3 or more non-diabetes chronic illnesses* and/or Any one of the following: mild cognitive impairment or early dementia (\geq2) IADL impairments</td>
<td>Any one of the following: End-stage medical condition(s)** Moderate to severe dementia (\geq2) ADL impairments Residence in a long-term nursing facility</td>
</tr>
</tbody>
</table>

**Reasonable glucose target ranges and HbA1c by group**

- **Shared decision-making: individualized goal may be lower or higher**
  - **Use of drugs that may cause hypoglycemia (e.g., insulin, sulfonylurea, glinides)**
    - **No**
      - Fasting: 90-130 mg/dL
      - Bedtime: 90-150 mg/dL
      - \(<7.5\)%
    - **Bedtime**
      - Fasting: 90-150 mg/dL
      - Bedtime: 100-180 mg/dL
      - \(<8\)%
      - **HbA1c**
        - \(<8.5\)%
    - **Yes\(^c\)**
      - Fasting: 90-150 mg/dL
      - Bedtime: 100-180 mg/dL
      - \(\geq7.0\) and \(<7.5\)%
    - **Fasting**
      - Fasting: 100-180 mg/dL
      - Bedtime: 150-180 mg/dL
      - \(\geq7.5\) and \(<8.0\)%
    - **Bedtime**
      - Fasting: 100-180 mg/dL
      - Bedtime: 150-250 mg/dL
      - \(\geq8.0\) and \(<8.5\)%

Patient Education

- What is low blood sugar
  - Why is it dangerous
- What are the symptoms
- How do you treat
- Sick day rules
- Prevention
  - Snacking for extra physical activity (or reduce insulin)
  - Carry rapid glucose on person
  - Mealtime insulin guides (don’t take if don’t eat)
- Call care team if experience low blood sugar, especially if unexplained
Meal Planning on Sick Days

If able to eat meals
- Eat usual meals
- Drink eight (8) ounces of calorie-free extra fluids each hour throughout the day
- Examples:
  - water
  - tea
  - broth
  - diet soda
  - sugar-free Jell-O

If not able to eat usual meals
- Try eating or drinking food or beverage items with 15 grams carbohydrate every hour (see list next slide)
  - e.g. 4 oz Regular Sprite + 4 oz Diet Sprite or 8 oz Gatorade
- Continue to drink extra calorie-free fluids in between
  - Eight ounces (8 oz) of fluid each hour
  - Every third hour, consume eight ounces (8 oz) of a sodium-rich choice such as bouillon
  - If having trouble keeping fluids down, have small sips every 15 minutes or so throughout the day to avoid dehydration
Foods/Fluids that contain 15 grams of Carbohydrate

- 1/2 cup apple juice
- 1/2 cup regular soft drink (caffeine-free)
- 1 double-stick popsicle
- 1/4 cup regular pudding
- 1 slice dry toast
- 1/2 cup cooked cereal
- 6 saltine crackers
- 1 cup soup

- 1/3 cup frozen yogurt
- 1 cup Gatorade
- 1/2 cup regular ice cream
- 1/4 cup sherbet
- Milkshake (1/3 cup low fat milk and 1/4 cup ice cream)
- 1/2 cup regular gelatin/Jell-O
- 1 cup nonfat, sugar-free yogurt (not frozen)
What’s the Answer – Diabetes is Hard

What does the A1c tell you? – **Not the whole story of glucose control**

What’s so bad about low blood sugar? – **Harm, High Burden & Costly**

Why do my patients with diabetes always seem to get worse over time? – **Progressive loss of beta cells (insulin secretion) from the pancreas**

How do I get my patients with diabetes to do what I tell them? – **Evidence-based Hope & Ownership**

---

**Non-adherence** may be the means by which a patient may express their preferences when their values, goals and preferences are not incorporated into the treatment decisions during the encounter.”

Shah et al, Med Care 2010;48
Idea Sharing

cgreenlee@westslopeendo.com
Extra Slides
A few useful terms & concepts

- Diabetes “Overwhelmus”
  - Clinical Inertia
  - Stigma - Expectations
- Diabetes Distress
  - Different than Depression
- Futility
  - Treatment Skepticism
  - Perceived Hopelessness
- Curiosity
- Compassion
- Confidence
- Contextual Care
- Cooperation
- Cohesion
Table 1

Conditions causing inappropriately high or low HbA1c[10]

<table>
<thead>
<tr>
<th>Inappropriately Low HbA1c</th>
<th>Inappropriately High HbA1c</th>
<th>Variable Effect on HbA1c+</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hemolysis</td>
<td>• Iron deficiency</td>
<td>• Fetal hemoglobin</td>
</tr>
<tr>
<td>• Certain hemoglobinopathies</td>
<td>• Vitamin B12 deficiency</td>
<td>• Methemoglobin</td>
</tr>
<tr>
<td>• Recent blood transfusion</td>
<td>• Alcoholism</td>
<td>• Certain hemoglobinopathies</td>
</tr>
<tr>
<td>• Acute blood loss</td>
<td>• Uremia</td>
<td></td>
</tr>
<tr>
<td>• Hypertriglyceridemia</td>
<td>• Hyperbilirubinemia</td>
<td></td>
</tr>
<tr>
<td>• Drugs*</td>
<td>• Drugs*</td>
<td></td>
</tr>
<tr>
<td>• Chronic liver disease</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypoglycemia and food Insecurity

![Graph showing admissions attributable to hypoglycemia and appendicitis over the month.](image-url)
DEFINITION OF MENTAL MODEL

MENTAL MODEL CAN BE DEFINED AS:
ASSUMPTIONS OR GENERALISATION BY WHICH WE MAKE SENSE
OF THE WORLD AROUND US

- THEY ARE CONSTRUCTED FROM OUR EXPERIENCES
- PROVIDE THE FILTERS THROUGH WHICH WE CHOOSE
  TO SEE THE WORLD
- INTERPRET NEW EXPERIENCES AND GIVE MEANINGS
  TO THE EVENTS AND ULTIMATELY TAKE DECISION

MENTAL MODELS FORM OUR BELIEF SYSTEMS AND ARE DEEPLY INGRAINED
AND PERSONAL. THIS IS WHY TWO PEOPLE WITH DIFFERENT MENTAL MODELS
CAN OBSERVE SAME EVENT DIFFERENTLY.