

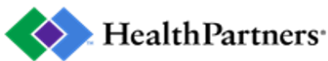


Meeting the Challenges of Diabetes

Core Basics

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MN Health Plans Collaborative



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Health Care Disparity

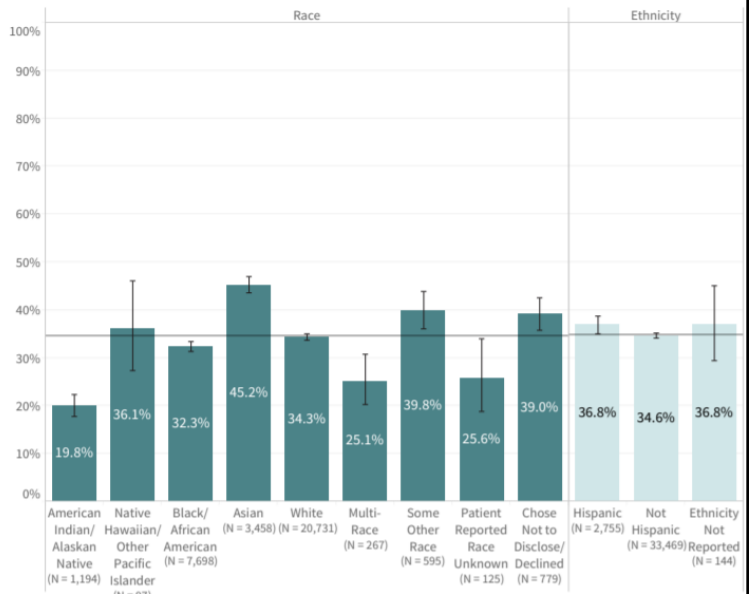
Diabetes is the sixth leading cause of death in Minnesota, and the leading cause of blindness, kidney failure, and lower-limb amputations.

The 2019 Minnesota Community Measurement Health Care Disparities Report highlighted two key findings:

1. American Indian/Alaskan Native and Black/African American patients with diabetes have the lowest rates of HbA1c control
2. Black/African American and Hispanic patients who have diabetes have significantly lower rates of blood pressure control compared to the statewide average for the Optimal Vascular Care measure

FIGURE 10: Optimal Diabetes Care MHCP Rates by Race and Hispanic Ethnicity

2019 report year (2018 dates of service)



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Future Webinar Series



Barriers of weight management for different culture groups



Creating healthy eating and exercise care plans tailored to culture groups



How to use supplemental benefits and remote patient monitoring for your patients



We ask that you suggest additional topics in the evaluation form.

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Today's Presenter

Jody Nelson MD, Lead Medical Director
Medica Utilization Management

Dr Jody Nelson was born and raised in south Minneapolis. Attended college and Medical School at the University of Minnesota and went on to complete her residency at Hennepin County Medical Center (HCMC), in Emergency Medicine. For 15 years, she was an Emergency Medicine Physician at Park Nicollet Methodist Hospital, in St Louis Park, MN, and then an Urgent Care physician for Park Nicollet. She has been with Medica as a Medical Director in Utilization Management (UM) department since 2017 and is currently the Lead Medical Director of UM. Jody has a passion for educating on medical topics.

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Objectives

- Discuss the Stigma of Diabetes
- Discuss the Complexity of Self Care
- Review Diabetes in Minnesota
 - Social Determinants of Health
- How can we deliver effective intervention?
 - Individualized approach to disease management
 - Cultural issues specific to diabetes management
- Recognizing Red Flags

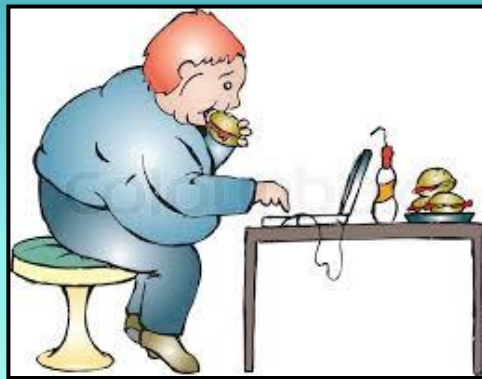
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Think of your 'typical' Diabetic Patient

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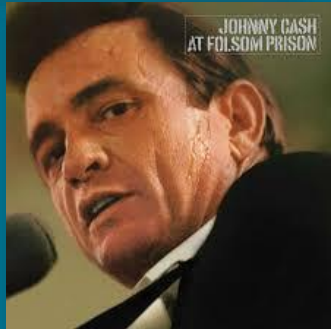
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 **stig·ma**
/'stigmə/

noun

1. a mark of disgrace associated with a particular circumstance, quality, or person.
"the stigma of having gone to prison will always be with me"

Similar: [shame](#) [disgrace](#) [dishonor](#) [stain](#) [taint](#) [blot](#) 



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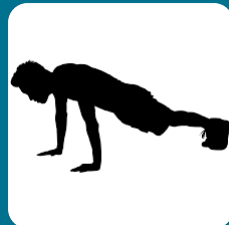
EVERYBODY knows how to be healthy

- Good Nutrition
- Exercise
- Healthy weight
- Take your medications correctly
- Keep your blood glucose under control
- Keep records



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Everyone tries to follow healthy lifestyle

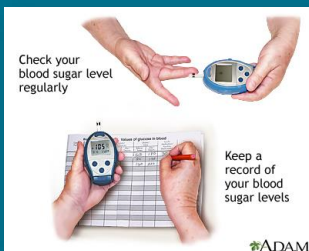


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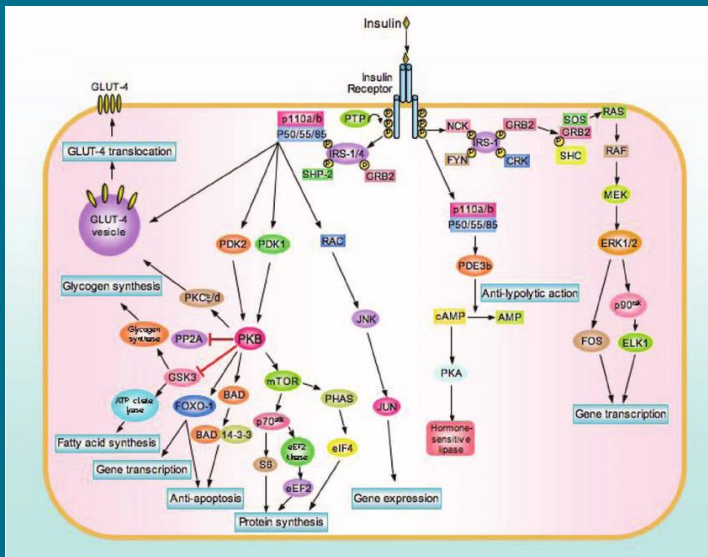
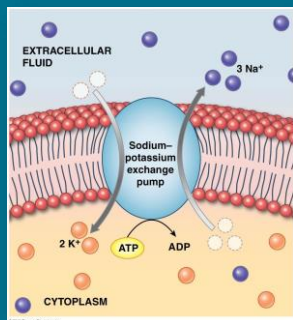
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Diabetes Self Care is COMPLICATED



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Diabetes care is complicated for providers!



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Diabetes care is complicated for providers!

Pharmacologic therapy in type 2 diabetes mellitus: General recommendations

Start with monotherapy unless:

- A1C is greater than or equal to 9%, consider "dual therapy".
- A1C is greater than or equal to 10%, blood glucose is greater than or equal to 300 mg/dL, or patient is markedly symptomatic, consider "Combination injectable therapy".

Monotherapy	Metformin
Efficacy*	High
Hypoglycemia risk	Low risk
Weight	Neutral/loss
Side effects	Gastrointestinal/acidic reflux
Costs*	Low

If A1C target not achieved after approximately three months of monotherapy, proceed to two-drug combination (order not meant to denote any specific preference - choice dependent on a variety of patient- and disease-specific factors).

Dual therapy	Metformin +	Sulfonylurea	Thiazolidinedione	DPP-4 inhibitor	SGLT2 inhibitor	GLP-1 receptor agonist	Insulin (basal)
Efficacy*	High	High	Intermediate	Intermediate	High	Highest	
Hypoglycemia risk	Moderate risk	Low risk	Low risk	Low risk	Low risk	High risk	
Weight	Gain	Gain	Neutral	Loss	Loss	Gain	
Side effects	Hypoglycemia	Edema, heart failure, fractures	Rare	Gastrointestinal, dehydration, headache	Gastrointestinal	Hypoglycemia	
Costs*	Low	Low	High	High	High	High	

If A1C target not achieved after approximately three months of dual therapy, proceed to three-drug combination (order not meant to denote any specific preference - choice dependent on a variety of patient- and disease-specific factors).

Triple therapy	Metformin +	Sulfonylurea +	Thiazolidinedione +	DPP-4 inhibitor +	SGLT2 inhibitor +	GLP-1 receptor agonist +	Insulin (basal) +	
DPP-4 +	or	SU	or	SU	or	TZD	or	basal
SGLT2 +	or	DPP-4 +	or	TZD	or	DPP-4 +	or	basal
GLP-1 +	or	SGLT2 +	or	SGLT2 +	or	SGLT2 +	or	basal
Insulin +	or	Insulin +	or	Insulin +	or	Insulin +	or	GLP-1

If A1C target not achieved after approximately three months of triple therapy and patient (1) on oral combination, move to basal insulin or GLP-1 RA, (2) on GLP-1 RA, add basal insulin, or (3) on optimal basal insulin, add GLP-1 RA or insulin analog. Monotherapy should be maintained, while other oral agents may be discontinued on an individual basis to avoid unnecessary complexity or costly regimens (ie, adding a fourth antihyperglycemic agent).

Combination injectable therapy

The order in the chart was determined by historical availability and the route of administration, with injectables to the right. It is not meant to denote any specific preference. Potential sequences of antihyperglycemic therapy for patients with type 2 diabetes are displayed, with the usual transition moving vertically from top to bottom (although horizontal movement within therapy stages is also possible, depending on the circumstances). Life-style modifications should be emphasized along with pharmacologic therapy.

A1C, glycosylated hemoglobin; DPP-4, dipeptidyl peptidase-4; SGLT2, sodium-glucose co-transporter 2; GLP-1, glucagon-like peptide-1; TZD, thiazolidinedione; SU, sulfonylurea; DPP-4 + DPP-4 inhibitor; SGLT2 + SGLT2 inhibitor; GLP-1 RA, GLP-1 receptor agonist; NPH, neutral protamine hagedron.

* For description of efficacy and cost categorizations, refer to Janusz SE, Berglund RM, Buse JB, et al. Management of hyperglycemia in type 2 diabetes, 2015: A patient-centered approach. Update to a position statement of the American Diabetes Association and the European Association for the Study of Diabetes. Diabetes Care 2015; 38:140.

† Usually a basal insulin (NPH, glargine, detemir, degludec).

From: Pharmacologic approaches to glycemic treatment. Diabetes Care 2017; 40:564. American Diabetes Association. Diabetes Care. American Diabetes Association, 2017. Copyright and all rights reserved. Material from this publication has been used with the permission of American Diabetes Association.

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How can we help?

- Start by understanding the issues
- What is unique to our communities?
- What is unique to this individual member?

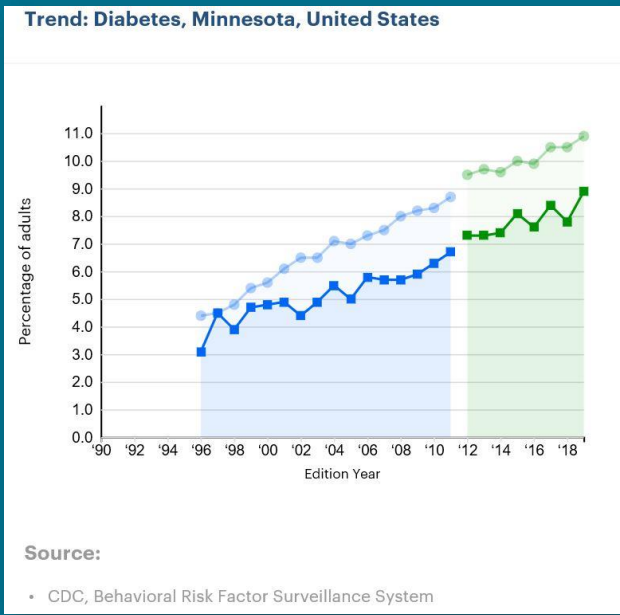
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Diabetes in



Minnesota

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INCOME, EMPLOYMENT & DIABETES IN MINNESOTA

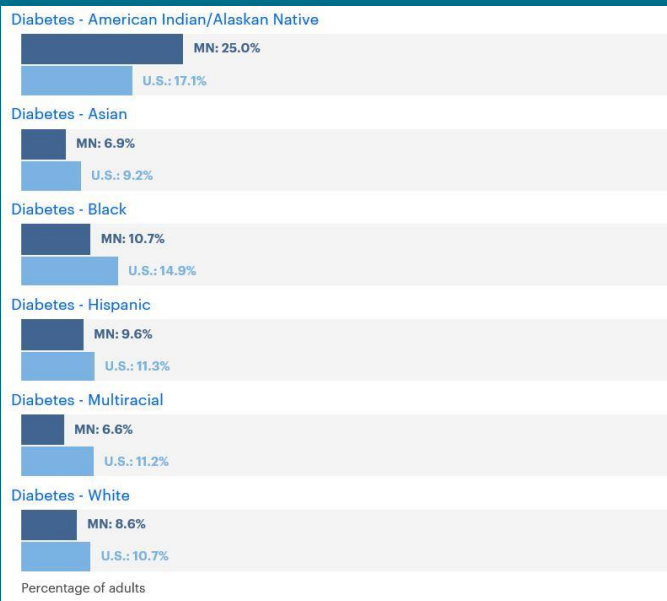
ADULTS IN MN HOUSEHOLDS EARNING LESS THAN \$35,000 PER YEAR* ARE **2.5 TIMES** AS LIKELY TO HAVE DIABETES

***1 in 4 adults have incomes below \$35K**

The report Income, Employment and Diabetes in Minnesota can be found at:
<http://www.health.state.mn.us/divs/healthimprovement/data/reports/diabetesincome.html>



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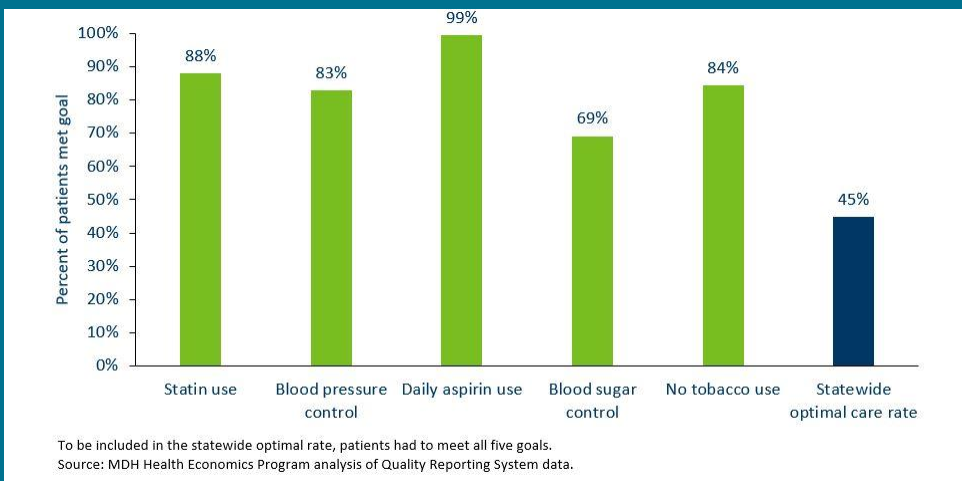


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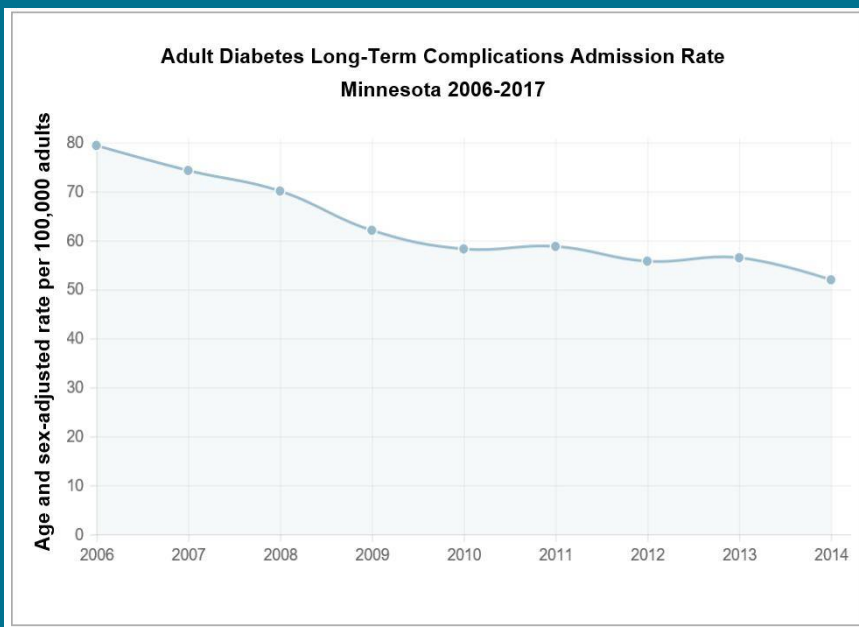
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What are we doing well?

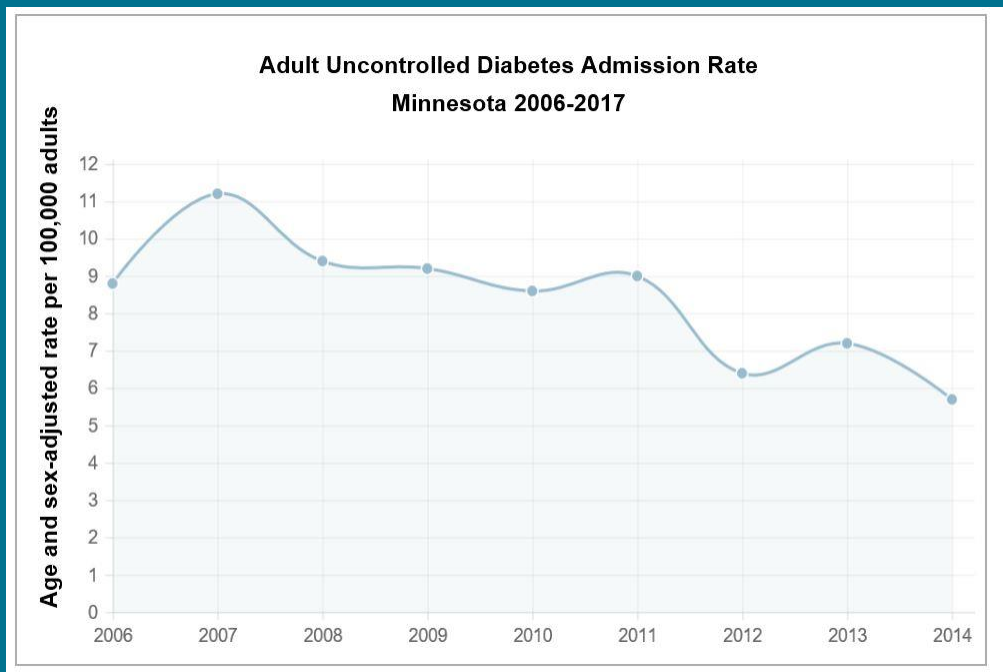


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**Adult Diabetes Long-Term Complications Admission Rate
Minnesota 2006-2017**



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Diabetes complications are all about Vascular problems

- Eyes
- Kidney
- Heart
- Stroke
- Extremities
- Prevention/Management:
 - Blood pressure control
 - Decreased time with hyperglycemia
 - While minimizing low blood sugar
 - Treating high Cholesterol
 - Decreasing Obesity

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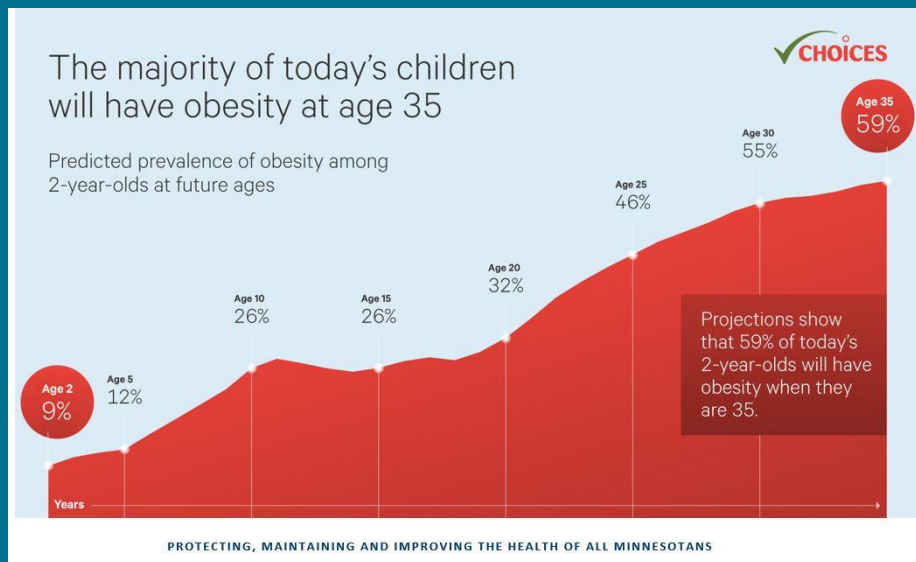
Good News!

1990-2010 people with diabetes:

- Heart attacks ↓ 68%
- Death due to Hyperglycemia ↓ 68%
- Stroke ↓ 53%
- Amputations ↓ 51%
- End stage kidney disease ↓ 28%

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What is going not so well



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How can we deliver effective care?

“[We need to] reframe the mindset of, ‘we have the answer, now you have to change.’ Why don’t we change our behavior to empower the patient to change their behavior?”

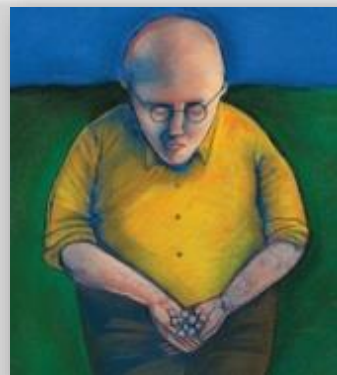
[We need to] change the mindset that patients are wrong or broken and only we have the answer to fix them. [We need] diversity in engagement, design, and solutions.”



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How can we deliver effective care?

- Start with the Individual
- ASK
- LISTEN
- Identify issues
- Problem solve without judgement



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How can we deliver effective care?

- Identify barriers to care:
 - Food insecurity
 - Safe place to exercise
 - Transportation
 - Safe and stable housing

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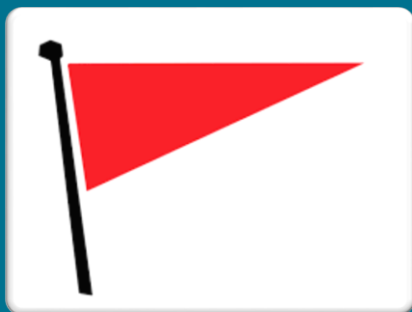
How can we deliver effective care?

- Culturally appropriate
- Engage support
 - Community health advocates
 - Family
 - Community



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Identify Red Flags



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Red Flags

Medication	Examples	Side Effects	Benefits	Notes
Biguanides	Metformin/GlucoPhage	GI problems Rare lactic acidosis	Low cost No hypoglycemia Extensive experience	First line
Insulin	Regular/NPH (Humulin or Novolin brand) Lispro/Humalog Aspart/Novolog Glargine/Lantus, Toujeo, Basaglar Detemir/Levemir Degludec/Tresiba	Hypoglycemia Weight gain	Universally effective Adjustable	Injections Training High-cost
Sulfonylurea	Glyburide, Glibenclamide/Glynase Diabeta, Micronase Glipizide/Glucotrol Glizolide/Diamicon Glimipride/Amaryl	Hypoglycemia Weight gain	Low cost Extensive experience	
Thiazolidinediones	Pioglitazone/Actos	Weight Gain Edema/Heart failure Fractures	No hypoglycemia Decreases Triglycerides	
GLP-1 Agonists	Exenatide/Bydureon, Byetta - twice a day Liraglutide/Victoza - daily Semaglutide/Ozempic - weekly Dulaglutide/Trelicia - weekly	GI side effects ?small risk pancreatitis Thyroid cancer in rats	Very little risk of hypoglycemia Weight LOSS Decreased appetite, increased satiety	High cost \$\$\$ Injection New to market - long term side effects may not be known
Gliptins, DPP4 Inhibitors	Sitagliptin/Januvia Saxagliptin/Onglyza Vildagliptin/Galvus Glipizide/Glucotrol Linagliptin/Tradjenta Alogliptin/Nesina	Only modest A1c improvement Urticaria/Angioedema ?Pancreatitis	No hypoglycemia Well tolerated No weight gain	Increases insulin secretion High Cost \$\$\$ New to Market - long term side effects may not be known
Glinides, Meglinides	Rapaglinide/Prandin Nateglinide/Starlix	Hypoglycemia Weight gain	Decreases high glucose after eating Dosing flexibility	Increases insulin secretion High cost \$\$\$
α -glucosidase inhibitors	Acarbose/Precose Miglitol/Glyset Voglibose/Banib	GI side effects (disturbance and diarrhea)	No hypoglycemia Decreases high glucose after eating	Slows absorption of glucose from GI tract
SGLT2 Inhibitors	Canagliflozin/Invokana Dapagliflozin/Farxiga Empagliflozin/Jardiance	Increases yeast infections Bladder infections Low blood pressure DKA possible Dehydration	No hypoglycemia	Increases excretion of glucose in urine New to Market - long term side effects not known High Cost \$\$\$

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Red Flags



- Common:
 - Most frequent new med for diabetes is Metformin
 - Causes GI side effects of Diarrhea – usually gets better with time
 - Watch for dehydration
 - Encourage that if the effects are too much – discuss with Provider – dose may need adjustment, or different medication may be needed

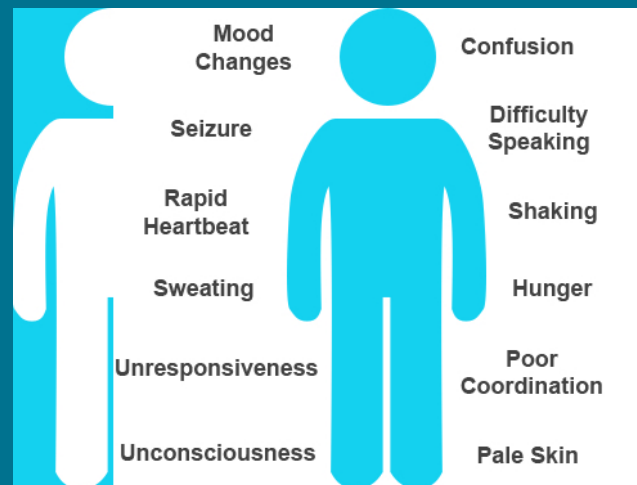


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Red Flags

- Always watch and ask about hypoglycemia (low blood sugar)

Hypoglycemia Unawareness



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Red Flags

- Access to prescribed medications
 - Financial
 - Transportation
- Feet – look at them
- Problems tolerating medications
- Living alone

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Red Flags

- Ability to measure – especially high risk for insulin and pill dispensing
 - Visual impairment
 - Cognitive impairment
 - Memory issues
 - Dexterity



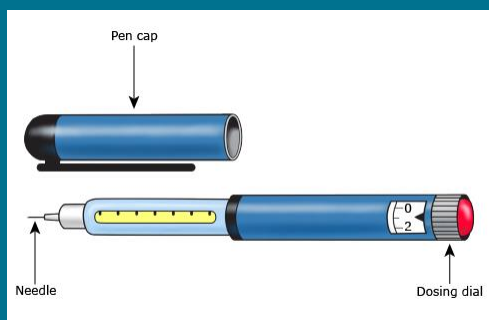
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Diabetes Care Technology

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Technology – Insulin pens, Blood glucose meters



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Technology – Continuous Glucose Monitors



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Technology – Insulin Pumps



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Technology – “Closed Loop”



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Questions and Open Discussion

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Thank You!

Evaluation – <https://www.cvent.com/d/1jqz9mf>

Certificate of Participation –upon completion of Evaluation

Recording - <https://stratishealth.org/health-plan-performance-improvement-projects-pips/pip-improving-comprehensive-diabetes-care/>

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