

# MTM STUDENT PHARMACY PROJECT

Recorded Training

**NDPhA** NORTH DAKOTA  
PHARMACISTS  
ASSOCIATION

**NDSU** SCHOOL OF  
PHARMACY

NORTH  
**Dakota** | Health  
Be Legendary.™



# INTRODUCTIONS

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# CDC DP18-1815

- Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke Grant - CDC-RFA-DP18-1815 (DP1815)
- The purpose of this grant is to implement and evaluate evidence-based strategies to prevent and control diabetes and heart disease especially for underserved populations in North Dakota.
- This will happen through collaboration between the North Dakota Department of Health (NDDoH) and:
  - health systems
  - pharmacies (including NDSU School of Pharmacy and NDPhA)
  - community entitiesto improve policies and processes that help people control high blood pressure and cholesterol, and prevent or manage diabetes.
- Two Categories: 1) Category A – Diabetes; 2) Category B - Hypertension

# Roles in Pharmacy Efforts

## ND Pharmacists Association

- Oversee statewide pharmacy assessment
- Technical assistance to pharmacies and students on MTM efforts
- Statewide training and strategic planning.

## NDDoH

- Technical assistance to pharmacy partners
- Oversee pharmacy contracts

## NDSU School of Pharmacy

- Support the student scholarship process, and support students.
- Provide additional educational opportunities to students and staff.

## NDSU School of Pharmacy: Center for Collaboration and Advancement in Pharmacy (NDSU CAP)

- Encouraging pharmacists to implement and expand billable services.

## Community Pharmacy

- Work to enhance or expand MTM services, with grant assistance.

## Other partners

- Thrifty White Pharmacies, Altru Health System, and Trinity Health.

# Performance Measures Snapshot – Category A

	STRATEGIES	Short Term PMs	Intermediate PMs	Long Term PMs
DIABETES MANAGEMENT	Increase access to and participation in DSMES programs	# & proportion of <u>new</u> recognized/accredited <u>DSMES programs</u>	# <i>PWD</i> with at least 1 encounter at ADA-recognized/AADE accredited DSMES program	Proportion of <i>PWD</i> with an A1C > 9
	Engaging pharmacists in MTM or DSMES	# <u>pharmacy locations/pharmacists using patient care processes</u> that promote MTM or DSMES for <i>PWD</i>		
DIABETES PREVENTION	Identify and refer to National DPP	# <u>patients served</u> in healthcare organizations with <u>systems to identify <i>PWpreD</i> &amp; refer</u> to National DPP	# participants enrolled in CDC-recognized lifestyle change programs	# <i>PWpreD</i> participating in CDC recognized lifestyle change programs who achieved 5-7% weight loss
	Obtain National DPP coverage as health benefit	# <u>employees; Medicaid beneficiaries; state/public employees; employees of private sector who have National DPP as covered benefit</u>		
	Increase enrollment in National DPP			

# Performance Measures Snapshot – Category B

CVD CLINICAL MEASURES	Use EHRs and Health Information Technology to improve HTN outcomes	# & % of <u>patients</u> within health care systems with systems to report <u>standardized clinical quality measures for management &amp; treatment of patients with high BP</u> (e.g. NQF18)	#/% of providers with protocol for identifying patients with undiagnosed HTN	% adults with known high BP who have achieved BP control
	Use evidence-based quality measurement to eliminate healthcare disparities	# & % of <u>clinics or providers</u> that use <u>standardized quality measures to track differences in BP control &amp; cholesterol management</u> in priority populations compared to overall populations		
CVD - TEAM BASED CARE	Engage non-physician team members in HTN and cholesterol management	# & % of <u>patients</u> in health care systems that have policies or systems to encourage a <u>multi-disciplinary team approach</u> to BP control & cholesterol management	% patients at high risk of cardiovascular events who were prescribed or on statin therapy	% patients with total cholesterol at goal (LDL & HDL)
	Adopt MTM between pharmacists & physicians	# & % of <u>pharmacists</u> engaged in <u>MTM to promote medication self-management &amp; lifestyle modification</u> for high BP & high blood cholesterol		
CVD – COMMUNITY / CLINICAL LINKS	Facilitate self-measured blood pressure monitoring (SMBP) with clinical support	# & % of <u>patients</u> within health care systems with policies or systems to encourage <u>SMBP tied to clinical support</u>	#/% patients with high BP that have self-management plan	



# PHARMACY PROJECT OVERVIEW

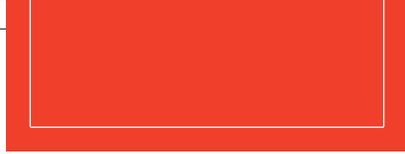
Elizabeth Skoy, PharmD

# What will your rotation look like?

- Goal: Through collaboration between the North Dakota Department of Health (NDDoH), NDSU School of Pharmacy and community pharmacies, the goal is to improve policies and processes that help people control high blood pressure and cholesterol, and prevent or manage diabetes.
- Key objectives:
  - Through weekly patient encounters, we hope you will complete the following targets:
    - 5 hypertension/blood pressure interventions
    - 1 SMBP loaner cuff consultation and 2 SMBP trainings
    - 5 prediabetes screenings – with 1 referral to the National Diabetes Prevention Program (NDPP)
    - 2 diabetes interventions
    - 5 immunization reviews and delivery
    - 5 patient/provider follow-ups
    - 4 MTM workups (2 for each hypertension and diabetes)
  - These will be tracked weekly, and entered into an online survey platform. We'll go into depth on this later.



# OVERVIEW OF PREDIABETES, DIABETES AND HYPERTENSION



# PREDIABETES

# Prediabetes

A condition marked by blood sugar above the normal range, but not so high as to be diagnosed as diabetes

## **Diagnosis criteria:**

- Hemoglobin A1c 5.7% - 6.4%
- Fasting blood glucose 100 - 125 mg/dL
- 2-hour oral glucose 140 - 199 mg/dL

## **Prevalence:**

- 88 million American adults (1 in 3) are estimated to have prediabetes
- >80% of patients with prediabetes have never been diagnosed and are unaware of their risk
- In ND, ~7.4% of adults have been diagnosed with prediabetes

## **Risk factors:**

- Overweight and Obesity
  - Abdominal adiposity
- Being 45 years or older
- Family history of type 2 diabetes
- Hypertension (HTN)
- Being physically active less than 3 times a week
- History of gestational diabetes
- American Indians (AI) and Asian Americans are at increased risk for type 2 diabetes

# Preventdiabetes

What you need to know:

1. Prediabetes is a serious condition and raises risk for type 2 diabetes, heart disease, and stroke.
  - 5-10% of prediabetes cases convert to type 2 diabetes annually
2. Screening for prediabetes is fast and easy using a written risk assessment
3. Prediabetes is underdiagnosed and often overlooked in primary care
4. Prediabetes is treatable and reversible
  - Lifestyle modification can reduce risk by 40-70%
5. The National Diabetes Prevention Program (DPP) is an evidence-based and effective intervention designed by the CDC to help participants reduce risk of diabetes through lifestyle modification
  - Classes are available in ND in-person, via Zoom, or online

# Prediabetes Patient Encounter

Processing a patient:

- Identify patients who may be at risk
  - Anyone over 18yo and overweight/obese
  - Male, over 40yo, h/o HTN, overweight/obese at especially high risk
- Screen for prediabetes using the CDC Prediabetes Risk Test
- Determine patient's risk score

## Prediabetes Risk Test

NATIONAL  
DIABETES  
PREVENTION  
PROGRAM

**1. How old are you?** Write your score in the boxes below

Younger than 40 years (0 points) \_\_\_\_\_  
 40–49 years (1 point) \_\_\_\_\_  
 50–59 years (2 points) \_\_\_\_\_  
 60 years or older (3 points) \_\_\_\_\_

**2. Are you a man or a woman?**

Man (1 point) Woman (0 points) \_\_\_\_\_

**3. If you are a woman, have you ever been diagnosed with gestational diabetes?**

Yes (1 point) No (0 points) \_\_\_\_\_

**4. Do you have a mother, father, sister, or brother with diabetes?**

Yes (1 point) No (0 points) \_\_\_\_\_

**5. Have you ever been diagnosed with high blood pressure?**

Yes (1 point) No (0 points) \_\_\_\_\_

**6. Are you physically active?**

Yes (0 points) No (1 point) \_\_\_\_\_

**7. What is your weight category?**

(See chart at right) \_\_\_\_\_

**Total score:**

Height	Weight (lbs.)		
4'10"	119-142	143-190	191+
4'11"	124-147	148-197	198+
5'0"	128-152	153-203	204+
5'1"	132-157	158-210	211+
5'2"	136-163	164-217	218+
5'3"	141-168	169-224	225+
5'4"	145-173	174-231	232+
5'5"	150-179	180-239	240+
5'6"	155-185	186-246	247+
5'7"	159-190	191-254	255+
5'8"	164-196	197-261	262+
5'9"	169-202	203-269	270+
5'10"	174-208	209-277	278+
5'11"	179-214	215-285	286+
6'0"	184-220	221-293	294+
6'1"	189-226	227-301	302+
6'2"	194-232	233-310	311+
6'3"	200-239	240-318	319+
6'4"	205-245	246-327	328+
	<b>1 Point</b>	<b>2 Points</b>	<b>3 Points</b>

← You weigh less than the 1 Point column (0 points)

Adapted from Bang et al., Ann Intern Med 151:775-783, 2009. Original algorithm was validated without gestational diabetes as part of the model.

### If you scored 5 or higher

You are at increased risk for having prediabetes and are at high risk for type 2 diabetes. However, only your doctor can tell for sure if you have type 2 diabetes or prediabetes, a condition in which blood sugar levels are higher than normal but not high enough yet to be diagnosed as type 2 diabetes. **Talk to your doctor to see if additional testing is needed.**

*If you are African American, Hispanic/Latino American, American Indian/Alaska Native, Asian American, or Pacific Islander, you are at higher risk for prediabetes and type 2 diabetes. Also, if you are Asian American, you are at increased risk for type 2 diabetes at a lower weight (about 15 pounds lower than weights in the 1 Point column). Talk to your doctor to see if you should have your blood sugar tested.*

# Now what?

Score of  $\geq 5$  is considered high risk for prediabetes and for developing type 2 diabetes.

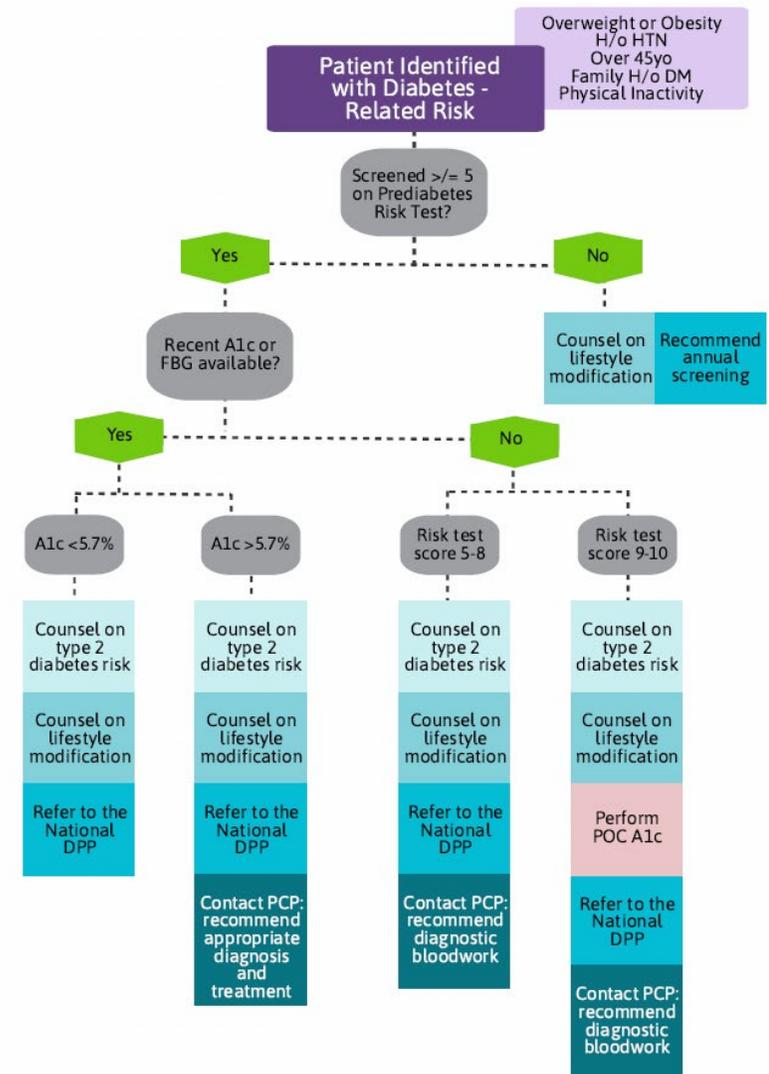
Now is the time to intervene.

Your patient deserves the chance to change the trajectory of their health.

Intervention will vary depending on risk, but should address patient's specified risk factors

- Counsel on risk
- Counsel on lifestyle modification
- Refer to the National DPP
- Contact provider with recommendation
- Point-Of-Care (POC) A1c testing

## Prediabetes Decision Tree



# Engage the Patient in their Health

Focus conversation on 3 key messages:

1. Prediabetes has serious implications for their health in the future.
2. Modest weight loss can drastically reduce risk of type 2 diabetes.
3. You have resources to help them!

Briefly explain the National Diabetes Prevention Program:

- 12-month program: 16 weekly sessions, monthly maintenance sessions for 6 months
- Facilitated by trained Lifestyle Coach using CDC-approved curriculum
- Curriculum covers healthy eating, physical activity, stress management, and relapse prevention
- Support in making gradual, sustainable lifestyle changes
- Goal to lose 5-7% of starting body weight

# Refer to the National DPP

**\*Required**

### Information of Person Being Referred

**First Name \***  **Last Name \***

**Date of Birth**  
-- Month --

**Phone \***  **Email**

**Insurance Provider**

**Insurance Group Number**  **Insurance Member ID**

**Primary Care Provider**

**City**  **State**

**County \***

**Class the person is being referred for \***

If patient is motivated to make lifestyle changes, refer them to the National DPP.

Visit [www.NDC3.org](http://www.NDC3.org) and complete the referral form online (takes 1-2 minutes).

### Referrer Information

**Full Name \***  **Phone \***

**Email \***  **Relationship to person being referred \***

**Additional Information**

I have read the NDC3 Privacy Policy and Terms of Use and I have obtained consent from the person I am referring to submit this referral on their behalf. \*

I'm not a robot   
reCAPTCHA  
Privacy - Terms

**SUBMIT**

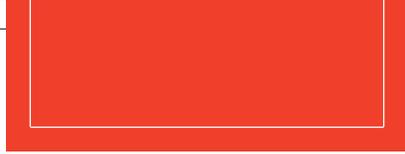
# Recommended Lifestyle Modifications

If the patient is not open to attending the National DPP, counsel them on the following general goals:

- Increase fruits and vegetables
- Reduce sugar, salt, fat, alcohol
- Increase the amount of time they are active
  - 150 minutes moderate intensity per week
- Get enough sleep
- Manage stress

Meet the patient where they are

- Promote small, gradual changes that they can sustain
- To be effective, the change should come from them



# DIABETES

# Diabetes

## Diagnosis criteria:

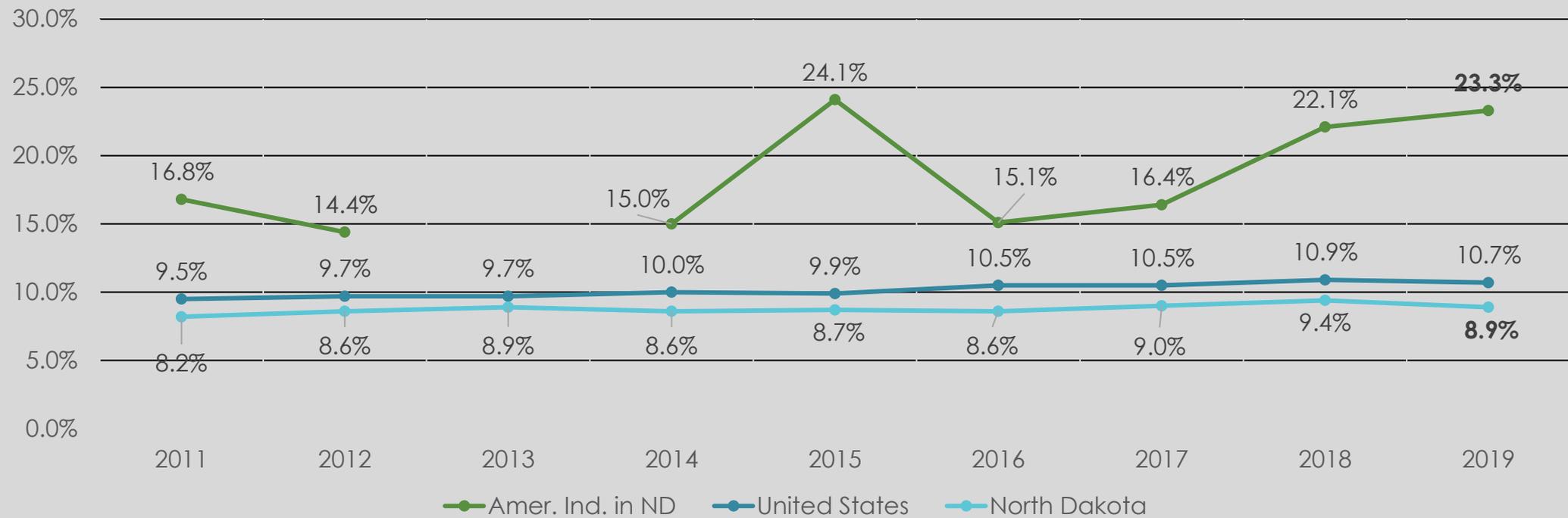
- HbA1c >6.4%
- Fasting blood glucose >126 mg/dL
- 2-hour oral glucose 140-199 mg/dL
- Random blood glucose level of > 200 mg/dL plus presence of symptoms

## Prevalence:

- 34 million Americans have diabetes (about 1 in 10)
- Approximately 90-95% of cases are type 2 diabetes

# Diabetes in North Dakota

Diabetes Prevalence, 2011-2019

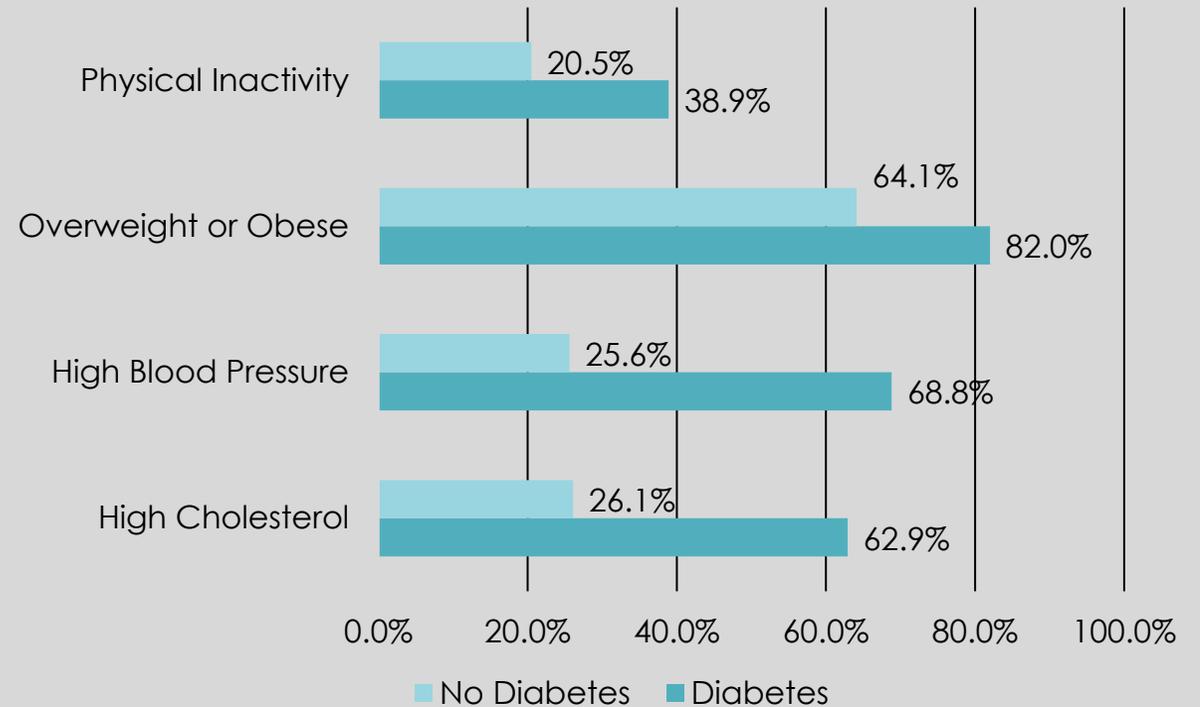


# Diabetes Cont.

## Risk Factors for Diabetes

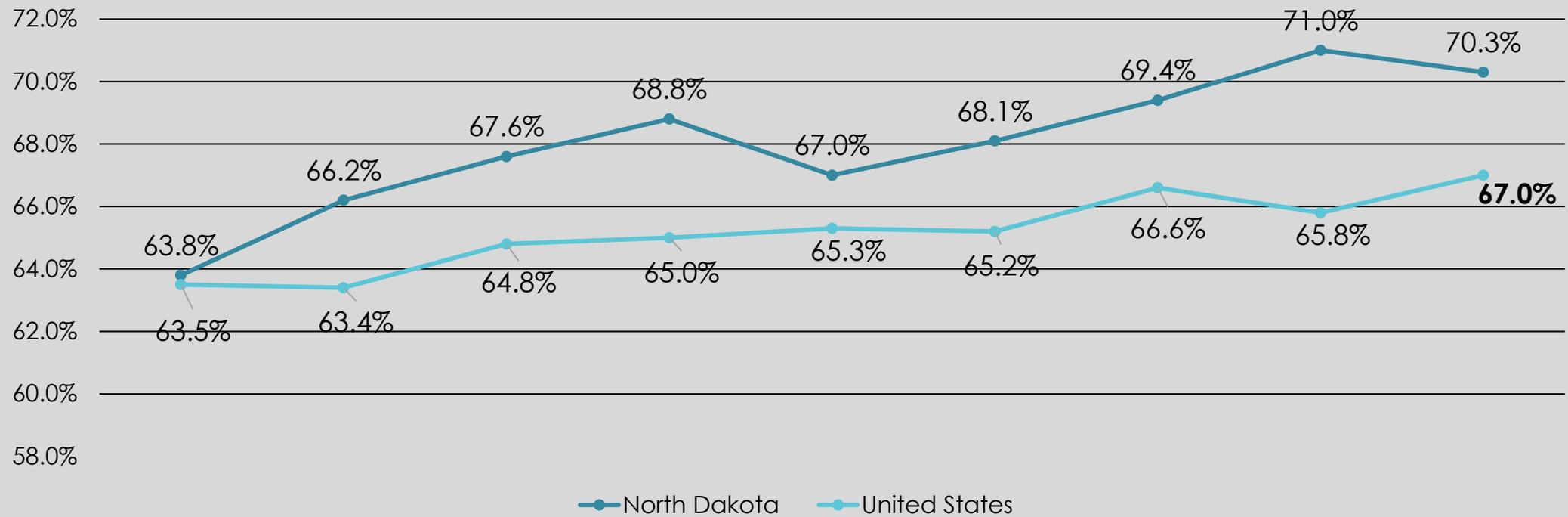
- Age
- Family History
- Physical Inactivity
- Obesity
- Hypertension
- Dyslipidemia

Modifiable Risk Factors Associated With Diabetes in North Dakota Adults



# Overweight/Obesity in North Dakota

BMI  $\geq$ 25, 2011-2019



# Diabetes Control

- Well-controlled is typically HbA1c <7%
  - Avg BG 154 mg/dL (8.6 mmol/L)
- Target range may be more (A1c >6.5%) or less stringent (A1c <8%) depending on patient's:
  - Potential risk of hypoglycemia
  - Disease duration
  - Life expectancy
  - Comorbidities
  - Vascular complications
  - Preferences
  - Resources/support systems
- Health system quality metrics = HbA1c <9% (212 mg/dL)

## **Effective diabetes management requires:**

- Routine care
- Multidisciplinary team approach
- Appropriate therapeutic interventions
- Medication adherence
- Self-monitoring
- Patient education
- Support system
- Appropriate lifestyle choices

# Disease Burden

## **Risk Factors for Complications:**

- Elevated A1c
- High Blood Pressure
- High Cholesterol
- Overweight and Obesity
- Physical Inactivity
- Current Smoker

## **Implications for patients:**

- Decreased quality of life
- Financial burden
  - Medical costs ~2.3x higher than for patients without diabetes
- 60% higher risk of early death
  - AI with diabetes 5x as likely to die from disease as white counterparts

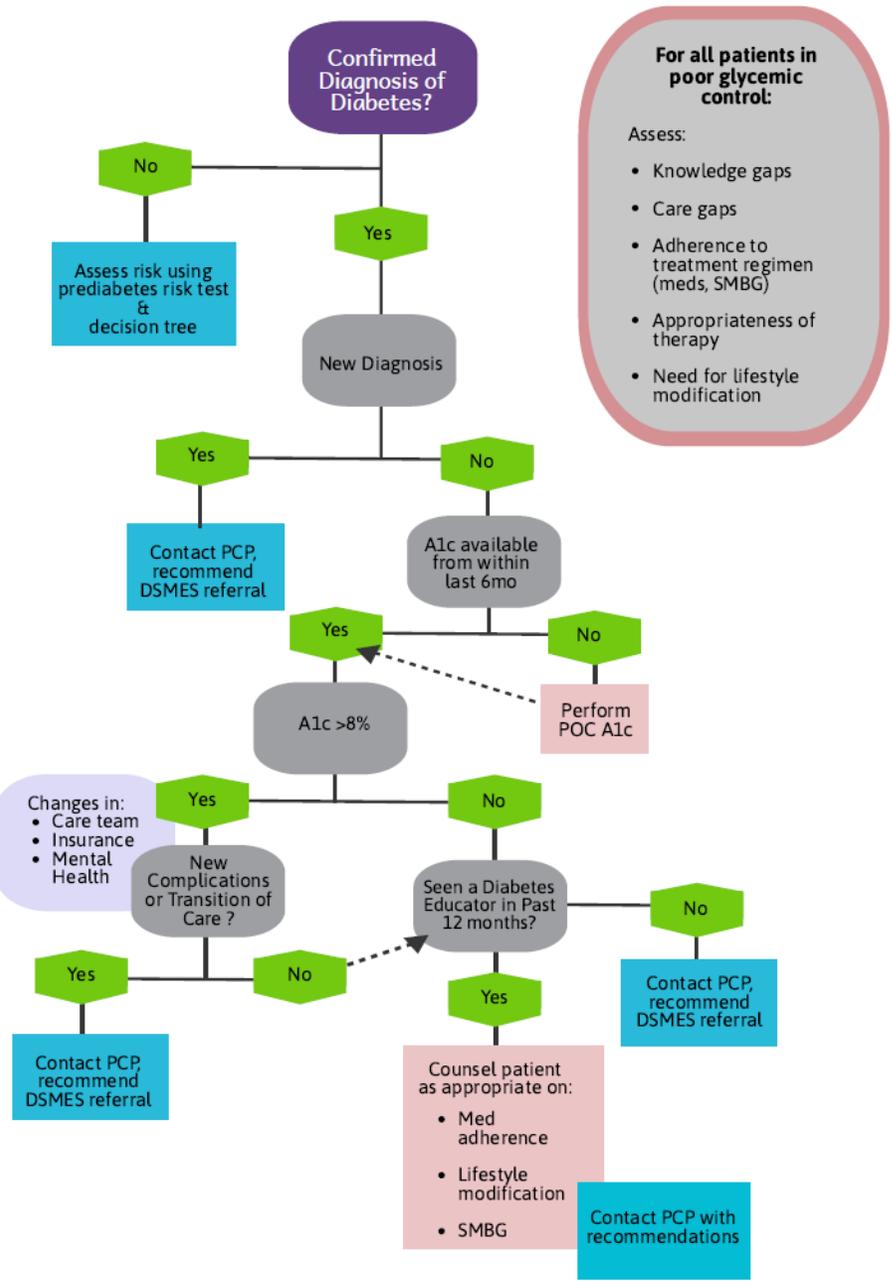
## **Possible Complications**

- Diabetic Ketoacidosis (DKA)
- Neuropathy
- Skin, eye, foot complications
- Amputation
- Infections
- Nephropathy
- Cardiovascular Disease (CVD)
- HTN
- Stroke

# Diabetes Patient Encounter

## Processing a patient:

- Screen for recent A1c
  - last 6 months if controlled
  - Last 3 months if uncontrolled
  - A1c may be obtained from NDHIN or patient EMR (patient portal or contact PCP)
  - May provide POC testing
- Discuss medication issues
  - Assess adherence
  - Appropriateness of current therapy/treatment plan
- Assess barriers to patient success
  - Knowledge gaps
  - Care gaps
- What to do next?
  - Counsel patient on self-monitoring blood glucose (SMBG)
    - Would patient benefit from Remote Patient Monitoring?
  - Provide patient education on recommended lifestyle modifications
    - Focus on choices that most impact blood glucose
  - Contact patient's PCP with a recommendation
    - Medication change
    - SMBG regimen
    - Referral for additional services
  - Schedule follow-up as needed
    - Depending on plan



**For all patients in poor glycemic control:**

Assess:

- Knowledge gaps
- Care gaps
- Adherence to treatment regimen (meds, SMBG)
- Appropriateness of therapy
- Need for lifestyle modification

# Additional Patient Resources/Support

## **Diabetes Self-Management Education and Support (DSMES) services**

- Evidence-based programs run by PharmD, RN, or RDN
- Accredited by ADCES or recognized by ADA
- *Requires referral from managing physician for insurance coverage*
- Education is individualized to address patient needs and knowledge gaps

## **DSMES curriculum must cover:**

- Pathophysiology
- Healthy Eating
- Physical Activity
- Medication Use
- Monitoring
- Acute Complications
- Chronic Complications
- Coping Strategies/Diabetes Distress
- Problem Solving

# When to Refer to DSMES

## Diabetes Self-Management Education and Support for Adults with Type 2 Diabetes: **ALGORITHM of CARE**

ADA *Standards of Medical Care in Diabetes* recommends all patients be assessed and referred for:



### FOUR CRITICAL TIMES TO ASSESS, PROVIDE, AND ADJUST DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT

**1**

**AT DIAGNOSIS**

**2**

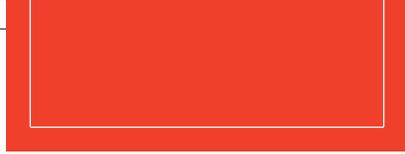
**ANNUAL**  
ASSESSMENT  
OF EDUCATION,  
NUTRITION, AND  
EMOTIONAL NEEDS

**3**

WHEN NEW  
**COMPLICATING**  
**FACTORS** INFLUENCE  
SELF-MANAGEMENT

**4**

WHEN  
**TRANSITIONS** IN  
CARE OCCUR



# HYPERTENSION

# Hypertension

## Diagnosis criteria:\*

- Two or more elevated readings at 2 separate appointments/locations.

<u>Category</u>	<u>Systolic</u>		<u>Diastolic</u>
Normal	Less than 120	AND	Less than 80
Elevated	120-129	AND	Less than 80
Hypertension (1)	130-139	OR	80-89
Hypertension (2)	140 or higher	OR	90 or higher
Hypertension Crisis	Higher than 180	AND/OR	Higher than 120

\*Substantially higher prevalence of HBP under the new guideline (46% vs. 32% of adults)

## Prevalence:

- 32.1% prevalence among US adults
  - 40.5% among adults 45-64
  - 65.9% among adults 65+
- 29.6% of ND adults reported ever being told by a doctor, nurse or other health professional that they have high blood pressure. (2017 ND BRFSS)

# Hypertension

- **Control criteria:**

- The Systolic target <130 mm Hg and a Diastolic target of <80 mm Hg.

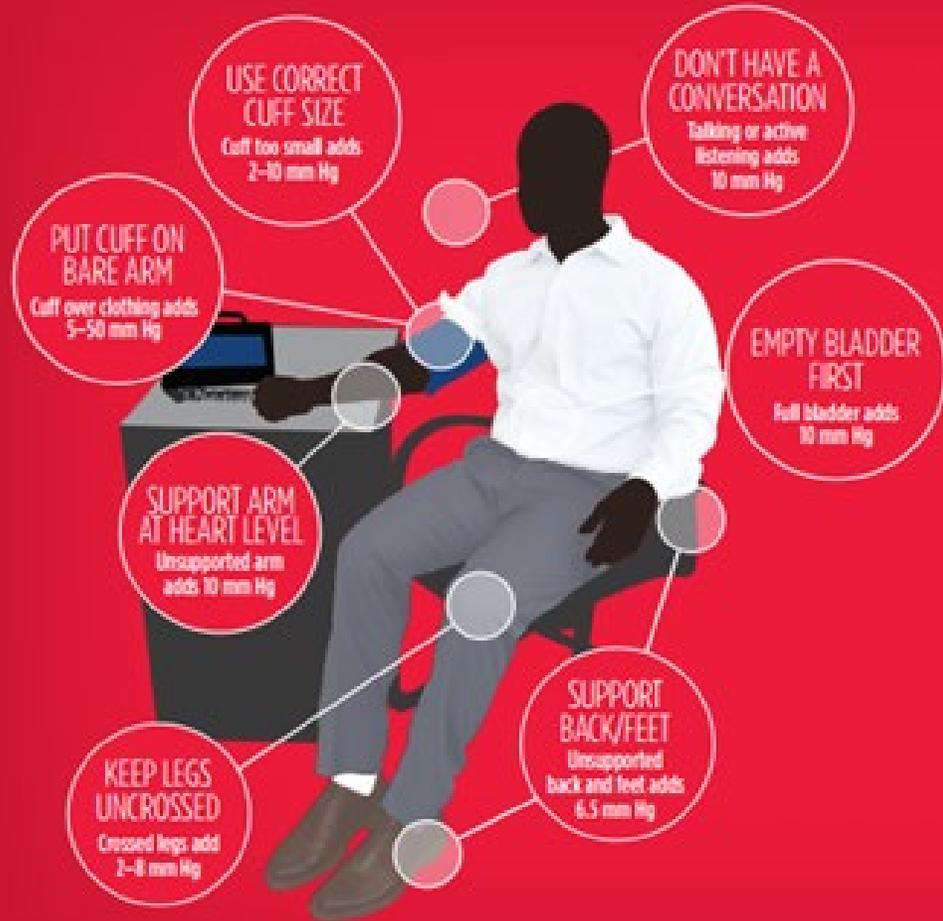
- **Control rates:**

- 22.7% of ND adults have UNCONTROLLED hypertension
- Across the US only about half of people with hypertension have it under control (61% with old guidelines, and 47% with new guidelines)

- **Why Hypertension Matters?**

- **First heart attack:** About 7 of every 10 people having their first heart attack have high blood pressure.
- **Heart failure:** About 7 of every 10 people with chronic heart failure have high blood pressure.
- **First stroke:** About 8 of every 10 people having their first stroke have high blood pressure.

# Accuracy in Blood Pressure



## 7 SIMPLE TIPS TO GET AN ACCURATE BLOOD PRESSURE READING

The common positioning errors can result in inaccurate blood pressure measurement. Figures shown are estimates of how improper positioning can potentially impact blood pressure readings.

**Source:**

1. Pickering, et al. Recommendations for Blood Pressure Measurement in Humans and Experimental Animals Part 1: Blood Pressure Measurement in Humans. *Circulation*. 2005;116: 887-916.
2. Handler J. The importance of accurate blood pressure measurement. *The Permanente Journal*/Summer 2009/Volume 13 No. 2 31

This 7 simple tips to get an accurate blood pressure reading was adapted with permission of the American Medical Association and The Johns Hopkins University. The original copyrighted content can be found at <https://www.ama-assn.org/ama-johns-hopkins-blood-pressure-resources>.

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# Accuracy in Blood Pressure

## Observer Factors

Wrong cuff size  
Cuff placed over clothing  
Improper positioning  
No rest  
Terminal digit preference  
Talking to patient  
Too rapid cuff deflation

## Patient Factors

Full bladder  
Stimulants  
Recent exercise  
Recent meal  
Talking, texting, reading

## System Factors

Location of monitor/device  
Noise  
Work Flows

# Competencies for Accurate BP

1. Patient is seated with back supported.
2. Patient's legs are not crossed.
3. Patient's arm is bare – and cuff is not placed over clothing.
4. Patient and nurse are not talking immediately before or during blood pressure screening.
5. Patient was able to sit for 1 to 5 minutes prior to blood pressure screening.
6. If blood pressure was elevated:
  - a) Patient and nurse discussed any factors that could falsely elevate blood pressure, such as, coffee, exercise, or smoking in the last 30 minutes.
  - b) Patient is allowed to rest, and blood pressure is retaken 1-5 minutes after initial elevated reading.

# SMBP and Patient Monitoring

## Common symptoms for Hypertension? None!

### Symptoms that **MAY** be seen with Hypertension?

- Headaches
- Shortness of breath, especially with exertion
- Symptoms related to complications:
  - Chest discomfort, Stroke, Kidney failure

### **We need you!**

- There is sufficient evidence of the effectiveness for SMBP to improve BP when used alone (training provided for proper use and communication)
- There is strong evidence for the effectiveness of SMBP to improve BP when combined with additional support (i.e., patient counseling, education, or web-based support)

## Why Self-Measured Blood Pressure (SMBP)?

- Use self-measured blood pressure monitoring (SMBP) to diagnose and reassess HBP
- SMBP refers to the regular measurement of BP by the patient outside of the clinic setting.
- SMBP can be used to confirm the diagnosis of HBP based on elevated office readings and for titration of BP-lowering medication.
  - • Provides multiple BPs over a longer period of time (more representative of patient's true BP)
- SMBP can help differentiate between sustained, white coat, and masked hypertension.

# Loaner cuff program

- 5 cellular loaner cuffs per pharmacy are available.
- We are utilizing the BodyTrace cellular cuff and the Diasyst platform to monitor.
- The cuffs are cellular and the interface is simple—no wifi, no bluetooth, just hit the Start button
- To begin, you will have access to add new patients to Diasyst. It's very easy, takes only a few minutes (truly).
- You can then access all of your patient data through Diasyst on the cloud at [provider.diasyst.com](https://provider.diasyst.com)
- To recycle a cuff, follow cleaning directions and send a support note with the patient MRN number to Diasyst to assign to a new patient when needed.



The screenshot shows the top portion of the Diasyst website. The navigation bar includes the Diasyst logo (a red heart icon followed by the text 'diasyst'), and several menu items: 'Who We Help', 'How It Works', 'Research & Results', 'Contact Us' (highlighted in a dark grey box), and 'Join The Team!' (highlighted in a red box). Below the navigation bar, the main heading reads 'Diabetes Automated' in bold black and red text. Underneath, a sub-headline states: 'Empower your organization to deliver excellent care at little cost, while keeping your current staff without any outsourcing. Maximize your ROI today with Diasyst.' At the bottom of the page, there are two red buttons: 'See How It Works' and 'Our Research & Results'. The background of the page features a black and white photograph of a healthcare professional in a white lab coat smiling and talking to an elderly patient.

# Diasyst Training

- This platform allows you to track patients remotely.
- Not all sites will be participating in the blood pressure cuff loaner program.
- We have pre-recorded a training on the Diasyst platform – which will be sent out after the training.

Hypertension Flow Sheet MONDAY (Apr 26, 2021) < 📅

	Breakfast				Lunch				Supper				Night	
	PRE	HR	POST	HR	PRE	HR	POST	HR	PRE	HR	POST	HR	BEDTIME	HR
MON (Apr 12)	140 / 85	59												
TUE (Apr 13)	140 / 85	59							134 / 75	72				
WED (Apr 14)									139 / 83	68				
THU (Apr 15)	141 / 74	66												
FRI (Apr 16)									140 / 77	64				
SAT (Apr 17)	143 / 87	64											139 / 87	65
SUN (Apr 18)	135 / 77	59											143 / 84	70
LAST WEEK														
MON (Apr 19)	141 / 88	64												
TUE (Apr 20)					174 / 88	63							149 / 85	64
WED (Apr 21)	138 / 81	66												
THU (Apr 22)														
FRI (Apr 23)	155 / 89	59											152 / 86	57
SAT (Apr 24)	152 / 91	60												
SUN (Apr 25)	154 / 87	57											158 / 85	63
THIS WEEK														
MON (Apr 26)					148 / 93	54								
LOW	135 / 70	55			138 / 80	53			128 / 75	64			130 / 70	57
AVG	148 / 84	63			155 / 91	58			140 / 80	69			142 / 80	64
HIGH	165 / 94	71			174 / 96	64			159 / 87	73			158 / 87	76

📅 30 days ▾



# Lifestyle Modification for Hypertension

Table 1. Effectiveness of Lifestyle Modifications in Lowering SBP

Modification	Recommendation	Approximate Reduction (mmHg)
Physical activity	Engage in regular aerobic physical activity (e.g., brisk walking) $\geq 30$ min/day, most days	4-9
DASH eating plan	Consume diet rich in fruits, vegetables, and low-fat (reduced saturated and total fat) dairy products	8-14
Dietary sodium restriction	Reduce dietary sodium intake to max of 100 mmol/day (2.4 g sodium or 6 g sodium chloride)	2-8
Moderate alcohol consumption	Limit daily consumption to max of 1 drink for women or 2 drinks for men	2-4
Weight loss	Maintain normal body weight (BMI 18.5-24.9 kg/m <sup>2</sup> )	5-20 per 10-kg weight loss
Stress reduction	Practice a stress-reduction modality such as TM	5
Tobacco cessation	Incorporate cessation modality of choice	2-4 (after 1 wk of cessation)

*DASH: Dietary Approaches to Stop Hypertension; max: maximum; SBP: systolic blood pressure; TM: Transcendental Meditation.  
Source: References 4, 10, 13, 16.*

# Hypertension Patient Encounter

- Processing a patient:
  - Take patient's blood pressure
    - Ensure proper positioning
    - Ask if they self-monitor at home.
  - Discuss medication complications and/or gaps.
- What to do next?
  - Counsel patient on medication adherence
  - Patient education on suggested lifestyle modification
    - Salt reduction
    - Physical activity – just move!
  - Referred patient to primary care provider for follow-up
  - Counseled patient on at-home BP monitoring
    - Encourage them to bring in their cuff
    - Start them on the Pharmacy SMBP Loaner program
  - Scheduled BP follow-up screening at the pharmacy at a later date
  - Contacted patient's primary care provider with a recommendation



# IMMUNIZATIONS

# Immunizations

- While immunizations are not the primary focus for the 1815 Enhanced MTM Rotation
  - Immunizations are important for individuals with chronic disease
- Lots of resources in your Virtual Binder,
- You will be tracking these on your Student Weekly Task Log.



# MEDICATION THERAPY MANAGEMENT (MTM) AND FOLLOW-UPS

# Pharmacist Patient-Care Process

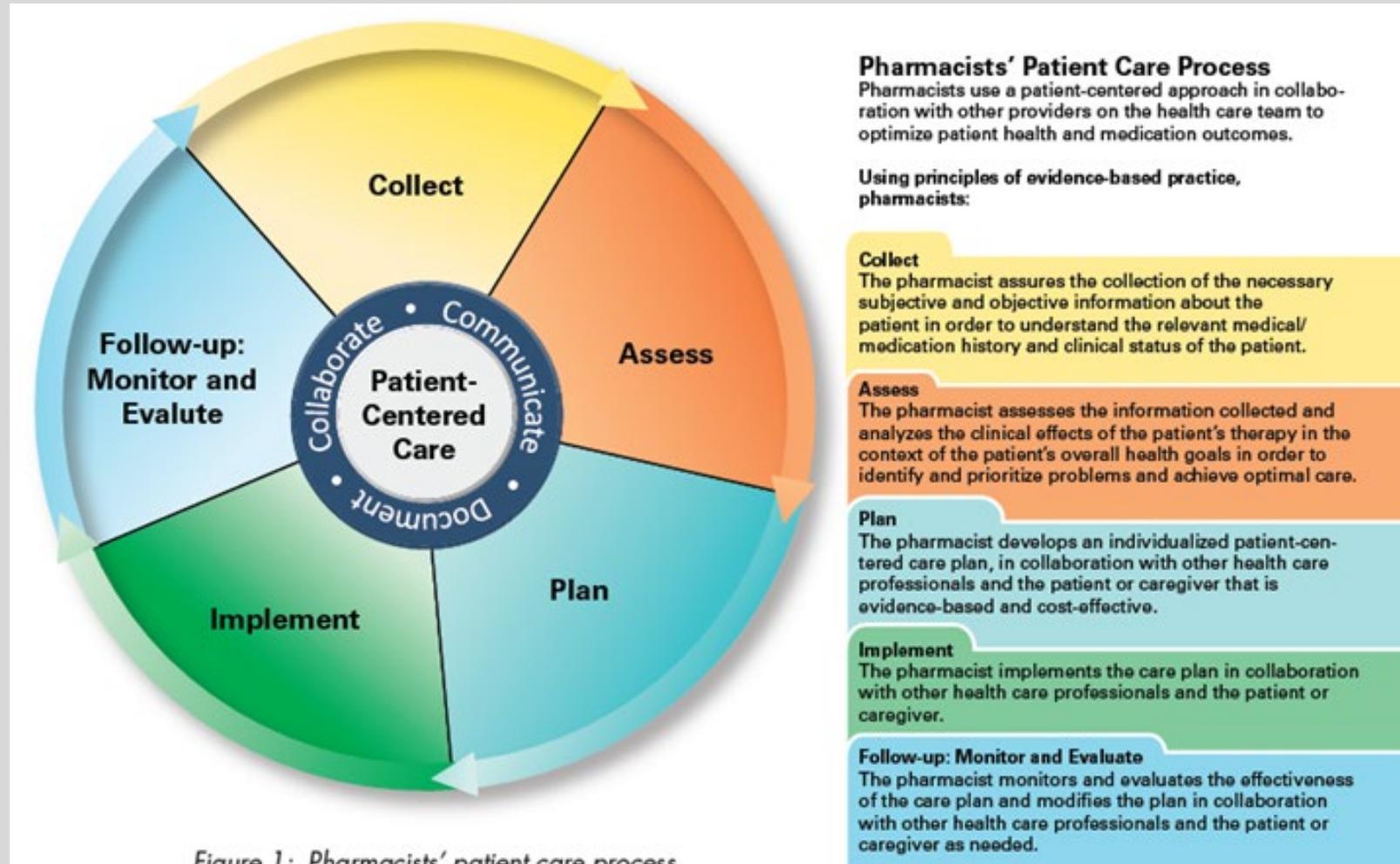


Figure 1: Pharmacists' patient care process

# Collect with MTM

- Subjective/objective information
- Medication list
- Drug utilization/adherence
- Nonprescription medication/herbal and dietary supplements
  - Non-regular medications (ointments, inhalers)
- Lifestyle habits
- Beliefs/preferences

# Assess

- Assess medication list
  - Appropriateness
  - Effectiveness
  - Safety
- Adherence
- Health status
- Risk factors
- Cultural
- Health literacy
- Medication Access
- Immunization status and other preventative care

# M E D I C A T I O N

- Match indications with medication
- Evaluate evidence for chosen therapy
- Dose and duration of medication
- Interactions
- Cost
- Adverse effects
- Taken as prescribed
- Immunizations
- Otcomes
- Needed therapy for untreated conditions

# Drug Therapy Problem Identification

## Drug Therapy Problem

### Dosage Too Low

- Wrong dose
- Frequency inappropriate
- Drug interaction
- Duration inappropriate
- Incorrect administration

### Dosage Too High

- Wrong dose
- Frequency inappropriate
- Duration inappropriate
- Drug interaction
- Incorrect administration

### Ineffective Medication

- More effective drug available
- Condition refractory to drug
- Dosage form inappropriate
- Not effective for condition
- Contraindication present

### Needs Additional Drug Therapy

- Untreated condition
- Preventative/prophylactic
- Immunizations
- Synergistic/additive effect

### Unnecessary Drug Therapy

- No medical indication
- Duplicate therapy
- Nondrug therapy indicated
- Addictive/recreational
- Treating avoidable ADR

### Experiencing Adverse Drug Reaction

- Undesirable effect
- Unsafe drug for patient
- Drug interaction
- Dose administered/changed too rapidly
- Allergic reaction
- Contraindications present
- Incorrect administration

### Adherence

- Directions not understood
- Patient prefers not to take
- Patient forgets to take
- Cannot swallow/administer
- Drug product not available
- Inappropriate administration technique

### Cost Containment

- Patient cannot afford
- Generic alternative available
- Pill splitting indicated
- More cost effective medication available

### Summary:

Provider contacted YES / NO

# Plan

- Address medication-related problems
- Set goals
- Engage the patient through education, empowerment and self-management
- Support care and utilize follow-up

# Resources

- Pharmacist/Pharmacy student
  - [www.guidelines.gov](http://www.guidelines.gov)
  - Current literature
  - Handbook
- Patient
  - Smoking cessation
  - Disease specific
  - Health/nutrition

# Patient/Provider Follow-Ups

- Patient Follow-Up
- Provider Follow-Up
- Multiple "widgets" per patient, if applicable.
- Medication effectiveness/appropriateness
- Adherence
- Clinical endpoints and outcomes of care
- Achievement of goals



# ADDITIONAL TRAININGS

# Blood Pressure Protocol Training

- Created in conjunction with the ND Million Hearts Program, and in collaboration with the ND Department of Health.
- Over 1,800 medical and allied health professionals have attended.
- Evaluations indicate that over 92% of attendees were taking blood in accurately and WILL make a change to their process.
- Training Objectives:
  - Identify prevalence of Hypertension in ND
  - Explain why accuracy in measurement of blood pressure is critical
  - Identify lifestyle recommendations to lower blood pressure
  - Recommend tools for education, workflows & review approved community-based protocol
  - Demonstrate proper sizing of BP cuffs and demonstrate proper technique for taking blood pressure in an ambulatory setting
  - Discuss alternate blood pressure measurement sites
- **Will be available for you to watch virtually on our 1815 MTM Student Rotation Website!**

# Motivational Interviewing Training

## *Skills Taught:*

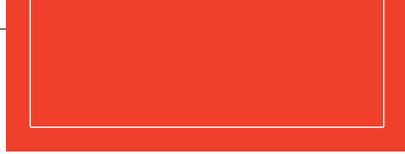
- Asking open-ended questions
- Reflective listening
- Showing empathy
- Building trust
- Establishing and maintaining a non-judgmental tone

## *Chronic Disease Issues:*

- Medication Adherence
- Nutrition & Physical Activity
- Obesity
- Diabetes Management
- Cardiovascular Disease
- Smoking Cessation

*Chronic Disease Conversation Skills* prepares health professionals to use motivational interviewing (MI) techniques to guide patients toward healthy changes. This learning experience provides practice with four virtual patients, building learners' skills and confidence having real-world, complex conversations.





# VIRTUAL BINDER OF RESOURCES

# Binder Overview

- Program Contact Information
- Enhancing MTM: Pilot Program User Guide
- Pharmacy Rotation: Forms, Documents and Data Collection
  - Paper forms for Qualtrics Patient Care
  - Health History/MTM form
  - DTP identification form
- Pharmacists Patient Care Process
- Immunization Resources
- Hypertension and Self-Measured Blood Pressure Resources
- Prediabetes Resources
- Diabetes Resources
- Lifestyle Modification Resources
- Motivational Interviewing Resources
- Copy of Student MOU

## Virtual Binder

### 1815 MTM Pharmacy Student/Preceptor Training

May 18, 2021

[Virtual Binder](#)