

MTM STUDENT PHARMACY PROJECT

May 18, 2021

NDPhA NORTH DAKOTA
PHARMACISTS
ASSOCIATION

NDSU SCHOOL OF
PHARMACY

NORTH
Dakota | Health
Be Legendary.™

Agenda

10:00a - 11:30a – Introduction and Overview

- Introductions
- Overview of 1815 project
- Pharmacy Project Overview
- Overview of Hypertension, Diabetes and Prediabetes
- Pharmacy Manual
- Southpointe testimonial
- Virtual binder
- Questions

11:30a – 12:00p - Breakouts for Students and Preceptors

12:00p – 1:00p – Data Collection, Recap and Questions

- Data Entry/Tracking – Patient Privacy
- Student/Preceptor surveys
- Questions

Housekeeping

- Please mute your phones/computers when not speaking
- This training is being recorded – and will be available for you to access after the training.
- When asking a question, please turn on your camera, if possible.
- We will move to breakout rooms later on – if you're calling in on a phone, and on a computer, please type in the chat, with your name and phone number. This will allow us to pre-assign you to a breakout session.



INTRODUCTIONS

NDSU School of Pharmacy: Dr. Elizabeth Skoy, Dr. Natasha Petry

North Dakota Pharmacists Association: Dr. Jesse Rue

North Dakota Dept of Health: Brianna Monahan and Tiffany Knauf

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> & 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 & 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 & 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		
	Adopt MTM between pharmacists & physicians	# & % of <u>pharmacists</u> engaged in <u>MTM to promote medication self-management & lifestyle modification</u> for high BP & high blood cholesterol	% patients at high risk of cardiovascular events who were prescribed or on statin therapy	
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

1815 Student Scholarship Program

- Objective
 - To fulfill the mission of North Dakota State University as a land grant institution and serve the citizens of North Dakota by assisting pharmacists to expand the provision of community pharmacist delivered clinical services.
- Introduction of scholarship program to students (September)
- Scholarship applications
 - 2 rounds
 - Matched 19 rotations
- Disbursement upon successful completion of all requirements
 - Successfully complete the rotation
 - Fulfill 1815 scholarship obligations (reports/surveys)

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 Case

- LW presents to the pharmacy to purchase some pseudoephedrine for allergies. Student offers prediabetes screening log. LW's prediabetes risk test score was a 6.
- Student counseled patient on risk of diabetes, provided patient education on suggested lifestyle modification, referred patient to primary care provider for follow up and referred patient to the National Diabetes Prevention Program.
- If point of care testing is available, could consider offering test for BG/A1c
- Student logged information in Prediabetes Screening Log

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?

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:

Write your score in the boxes below

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+
	1 Point	2 Points	3 Points

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

Total score:

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.

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

Now what?

Score of ≥ 5 is considered high risk for prediabetes and for developing type 2 diabetes.

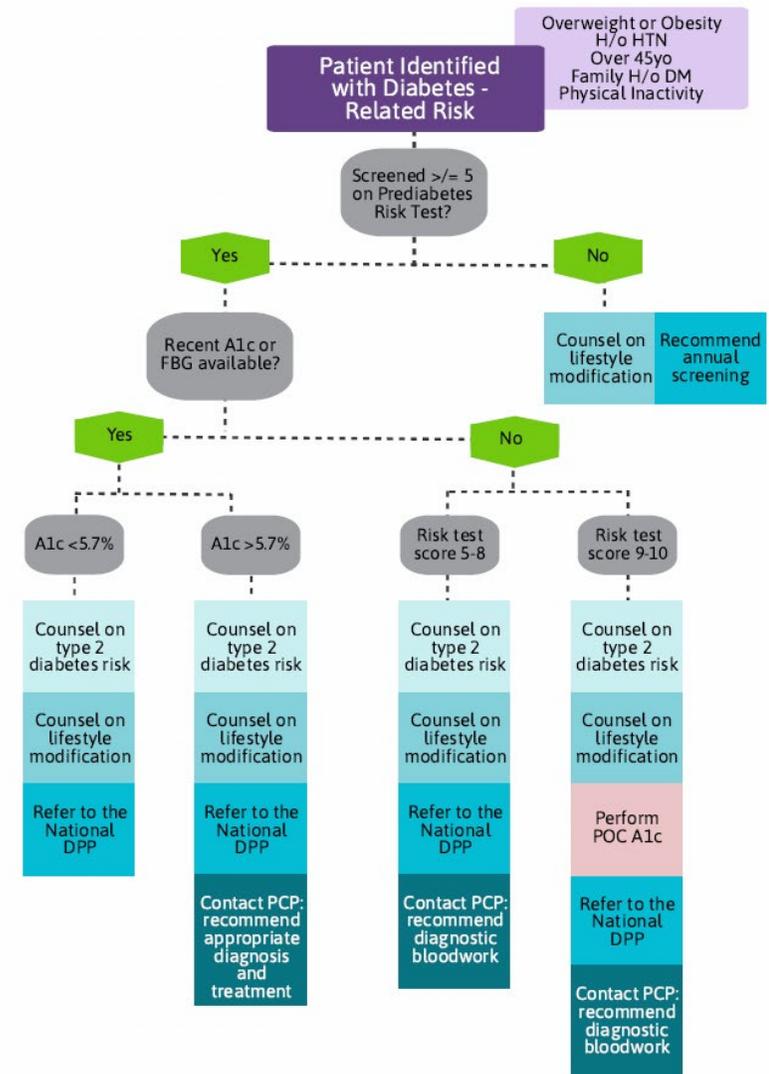
Now is the time to intervene.

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 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

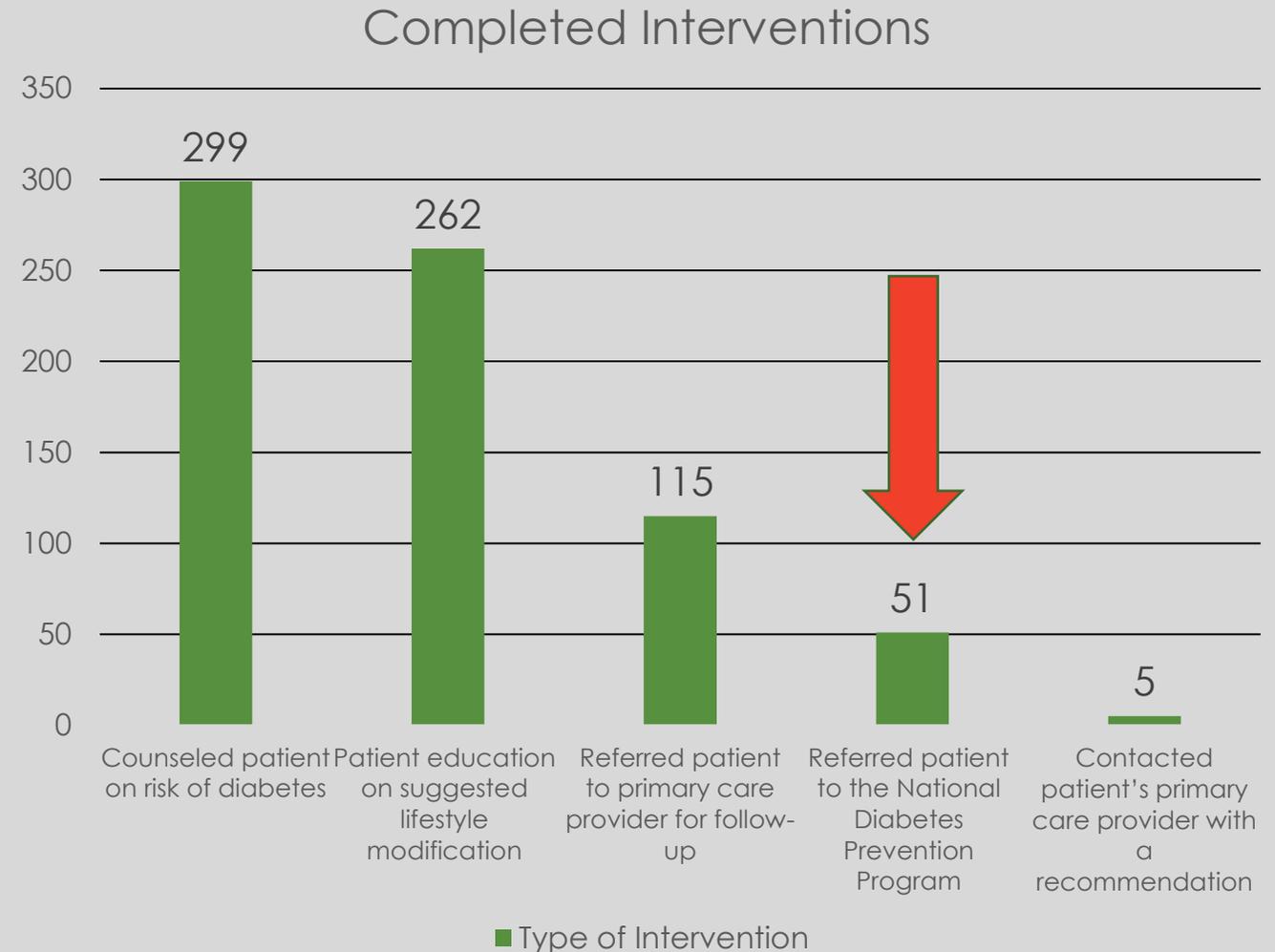
Meet the patient where they are

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

Prediabetes Patient Encounters

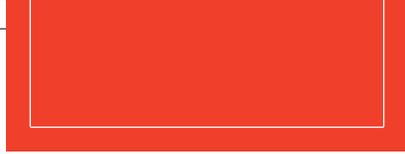
2020-2021

- # of Patients Screened: 369
 - # High Risk: 218
 - 59% of those screened
- Who completed the screen?
 - 100% done by students
- How long did this intervention take?
 - Less than 3 minutes – (n=37)
 - 3 to 5 minutes – (n=49)
 - More than 5 minutes – (n=5)



Success Stories from Students

- I looked through the patient's labs and did not find an A1c value. I contacted the PCP and recommended ordering an A1c lab at the patient's next visit.
- I checked the blood glucose and it was 99. We had a long conversation about diet and exercise changes to his daily health plans.
- Patient does not have Medicare drug coverage. To save money, he states he doesn't take meds on one day each week. This doesn't line up with fill history (90DS every 150 days), however I didn't seem to change his mind. Trying to figure out other cost-effective options for him. Hopefully discussion about prediabetes risk and potential cost of diabetic medications will sway him to be more adherent with current medications.



DIABETES

Diabetes

Diagnosis criteria:

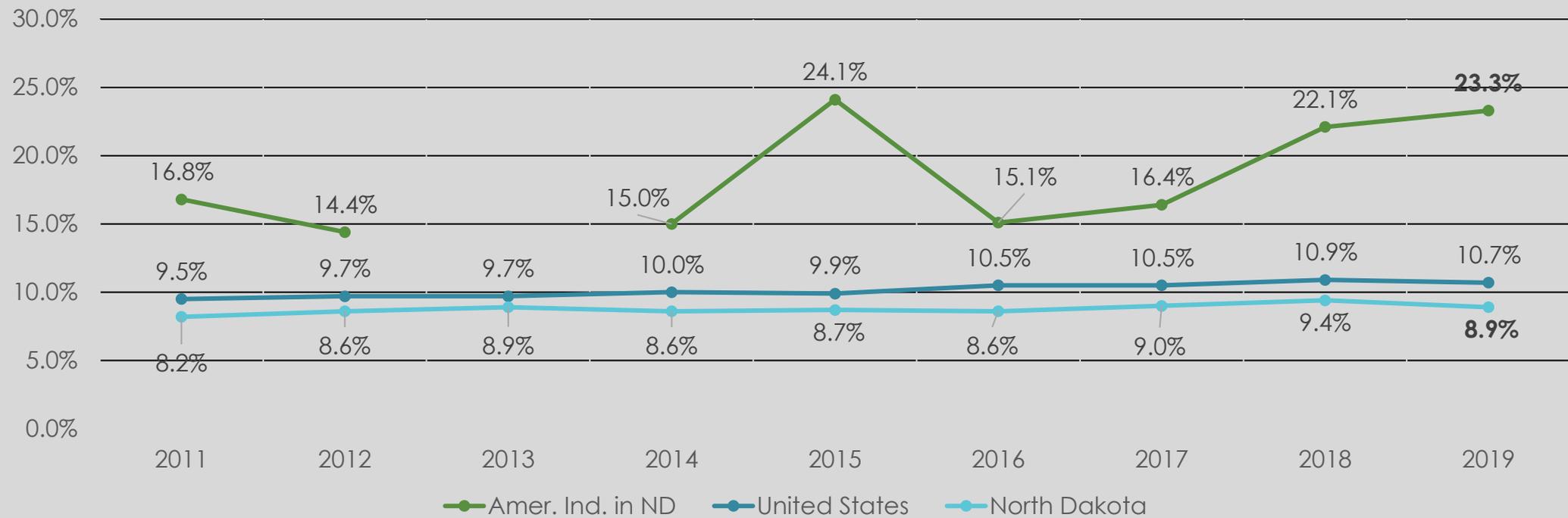
- HbA1c >6.4%
- Fasting blood glucose >126 mg/dL
- 2-hour oral glucose 140-199 mg/dL
- Random blood glucose level of > 200 mg/dL plus presence of symptoms

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

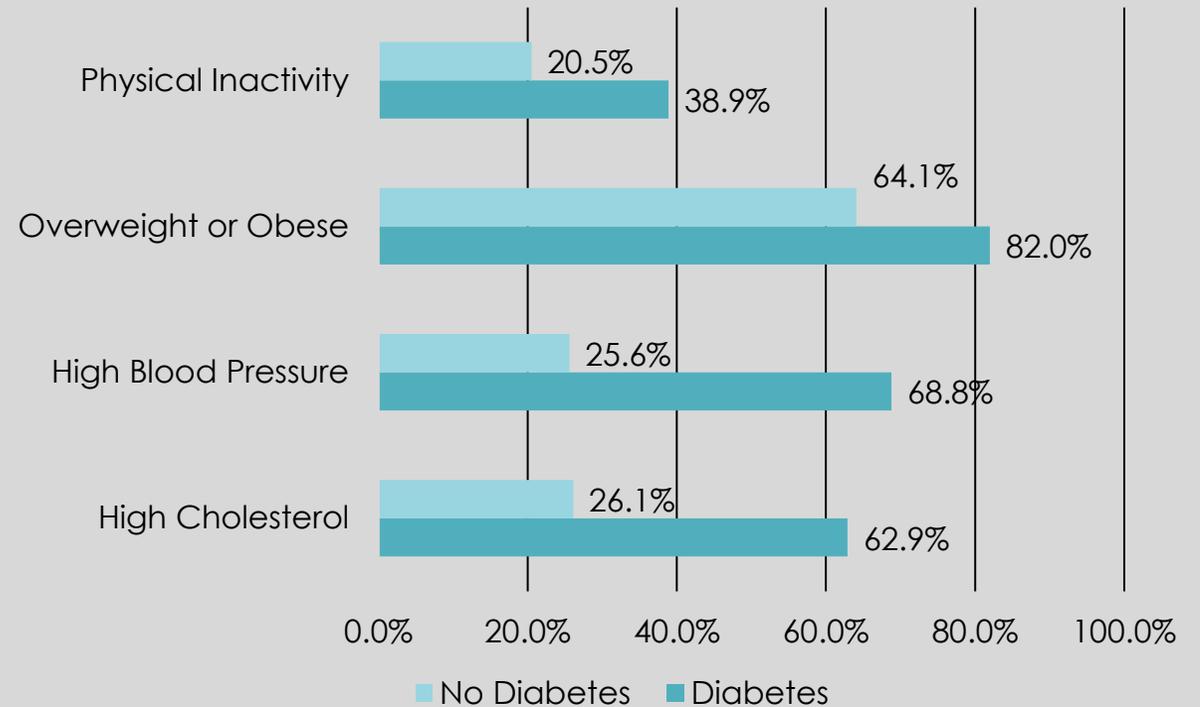


Diabetes Cont.

Risk Factors for Diabetes

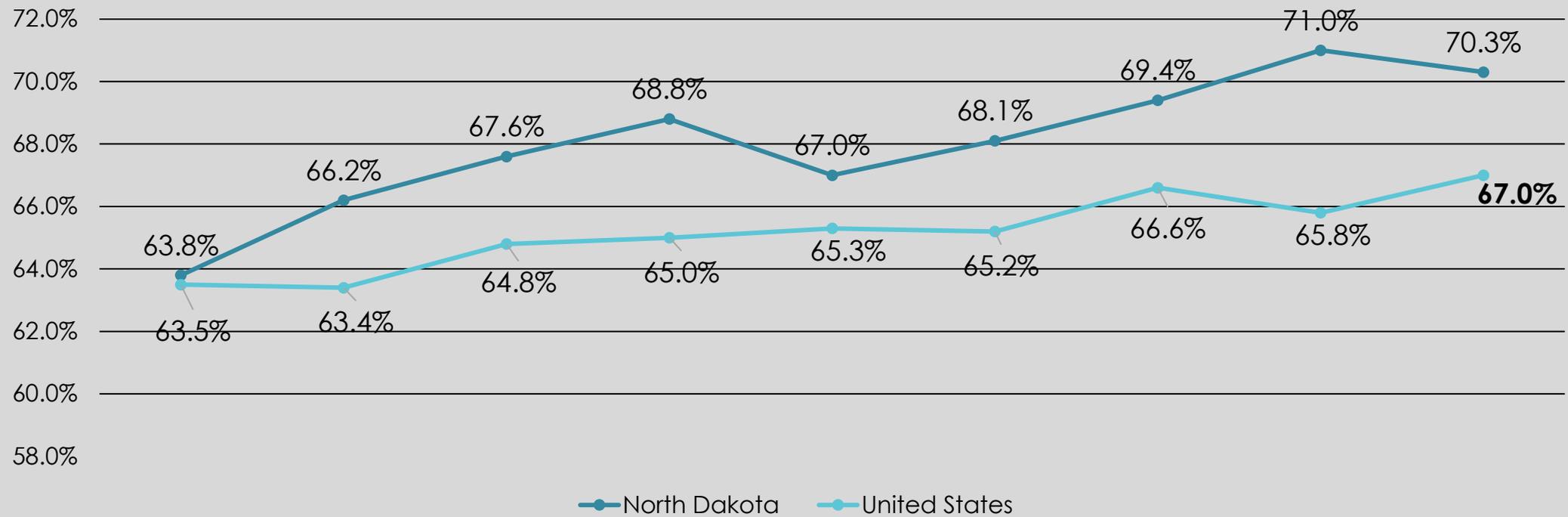
- Age
- Family History
- Physical Inactivity
- Obesity
- Hypertension
- Dyslipidemia

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

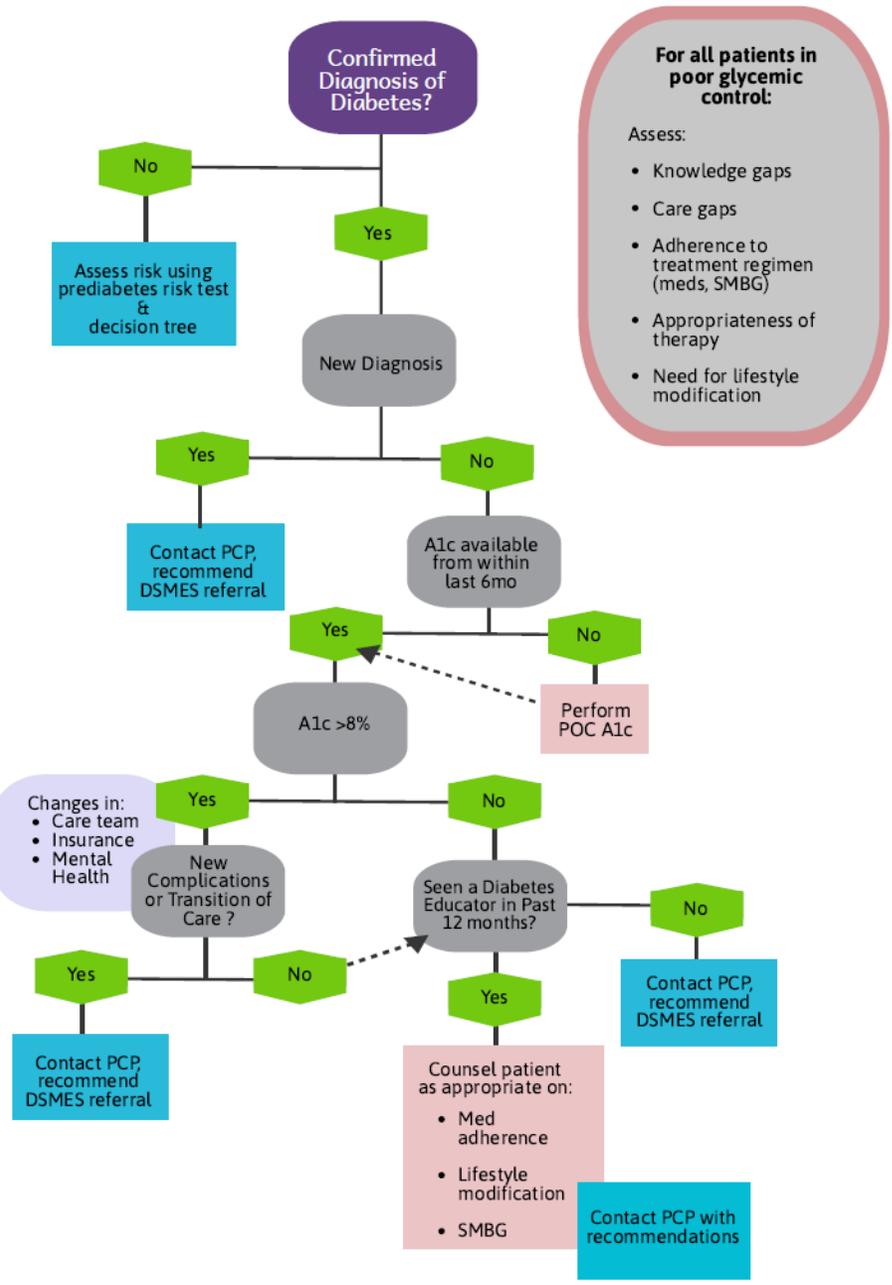
Diabetes Case

- CM is 57 years old and a well-known patient of the pharmacy. CM currently takes insulin glargine 18 units subcutaneously at bedtime. CM comes into the pharmacy today and when asked reports blood sugars are “fine.” After further prompting, CM reports a recent blood glucose of 258 fasting this morning (source: SMBG).
- Student counseled CM on SMBG management, provided patient education on recommended lifestyle modifications, and contact patient’s primary care provider with a recommendation to increase insulin glargine by 4 units.
- Next steps: provide follow up information to patient and student to log information in the Diabetes Assessment Log

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

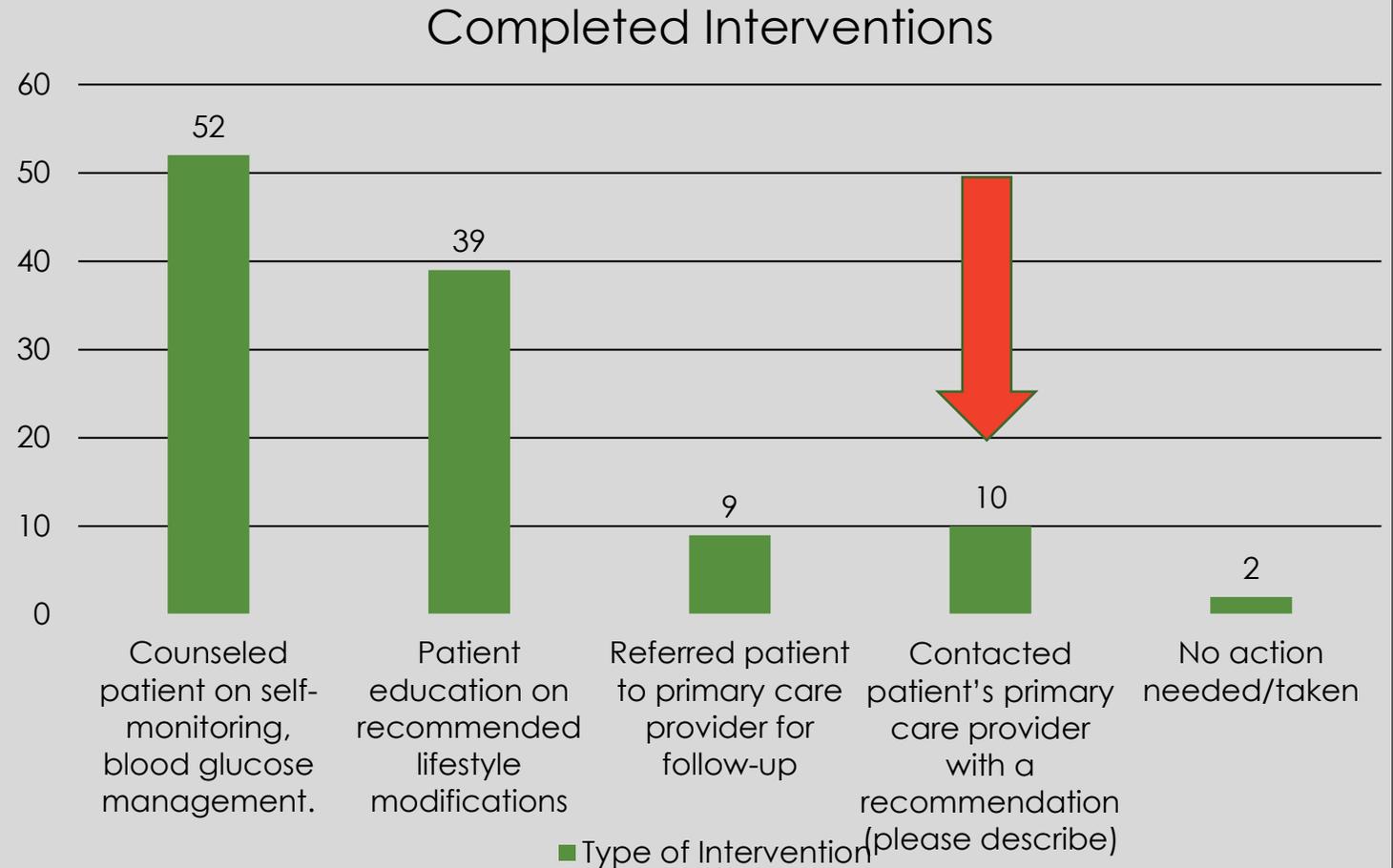
WHEN NEW
COMPLICATING
FACTORS INFLUENCE
SELF-MANAGEMENT

4

WHEN
TRANSITIONS IN
CARE OCCUR

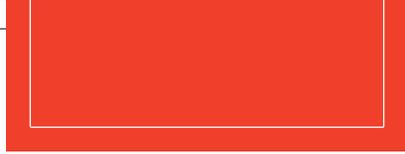
Diabetes** Patient Encounters 2020-2021

- # of Patients Screened: 62
 - Of the 29 pts that provided recent blood glucose or A1cs, 10 were elevated
- Who completed the screen?
 - 61 done by students
- How long did this intervention take? *
 - Less than 5 minutes – (n=1)
 - 5 to 10 minutes – (n=4)
 - More than 10 minutes – (n=6)



Success Stories from Students

- Patient was not administering insulin properly, he was not inserting the needle straight in and straight out and was instead bending the needle. I instructed him how to properly administer insulin.
- Patient was wondering if insulin pens or vials would be cheaper for her. I looked into it and found that the vials were cheaper. She prefers the pens as they are easier to draw up/measure for use with her insulin pump.
- I met with this patient for a diabetes initial visit. We reviewed his diabetic medications which were all going great for him and even helped his A1c drop from 11 to 8.4 since July. I explained to the patient about being on a statin and how it will help lower his cholesterol and triglycerides which he was struggling with dropping. I also spoke about the risk reduction for heart attack and stroke. He was onboard for adding a statin, so I followed up with his provider for this addition.
- Due to the patient's insurance, the patient's long-acting insulin was recently switched to a different long-acting insulin. The directions for the patient's old insulin had the patient injecting 10 units in the morning and in the evening, but the new directions had the patient injecting 10 units in the morning and 20 units in the evening. The patient experienced low blood sugars in the 50's and 60's and started taking her insulin as 10 units in the morning and evening. This resolved the low blood sugar issues and the patient's blood sugar reading were well controlled with her A1C being 6.2 as measured by lab prior to her visit with me. The pharmacist was able to adjust the patient's insulin dosing through a collaborative practice agreement and decreased the patient's insulin dose to how she is taking it. The provider was notified of this adjustment.



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

<u>Observer Factors</u>	<u>Patient Factors</u>	<u>System Factors</u>
Wrong cuff size	Full bladder	Location of monitor/device
Cuff placed over clothing	Stimulants	Noise
Improper positioning	Recent exercise	Work Flows
No rest	Recent meal	
Terminal digit preference	Talking, texting, reading	
Talking to patient		
Too rapid cuff deflation		

PUT CUFF ON BARE ARM
Cuff over clothing adds 5-50 mm Hg

SUPPORT AT HEEL
Unsupported back and feet adds 6.5 mm Hg

KEEP LEGS UNCROSSED
Crossed legs add 2-8 mm Hg



Unsupported back and feet adds 6.5 mm Hg

Information on blood pressure measurement and accuracy can be found at <https://www.ama-assn.org/ama-journal-topline-topline-blood-pressure-resources>.

Updated December 2016
©2016 American Medical Association. All rights reserved.



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.

Hypertension/Blood Pressure Case

- KJ presents to the pharmacy and student offers to take blood pressure. BP measured at 150/99 mmHg. KJ has history of hypertension and reports decent adherence to medication but is known to miss a dose or two a week (which is backed up when fill history is reviewed)
- Student counseled KJ on medication adherence and referred to PCP for follow-up. Student counseled KJ on at home BP monitoring and recommended follow-up screening at the pharmacy.
- Information entered into BP Log

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!

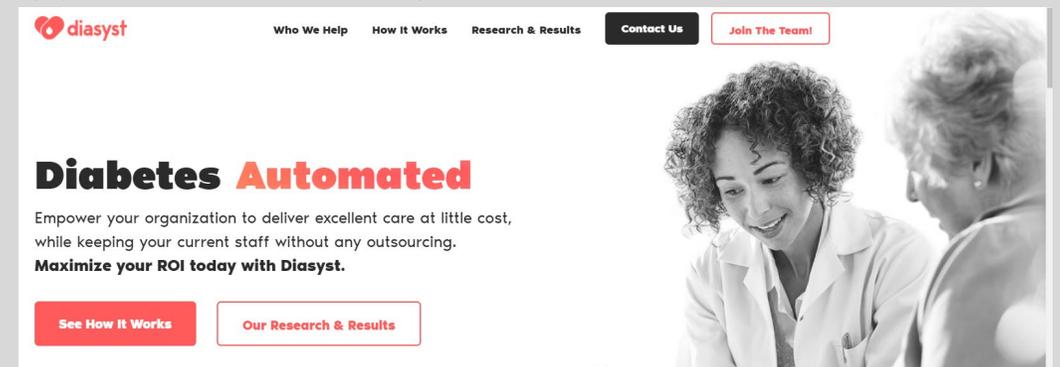
- There is sufficient evidence of the effectiveness for SMBP to improve BP when used alone (training provided for proper use and communication)
- There is strong evidence for the effectiveness of SMBP to improve BP when combined with additional support (i.e., patient counseling, education, or web-based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



diast Who We Help How It Works Research & Results [Contact Us](#) [Join The Team!](#)

Diabetes Automated

Empower your organization to deliver excellent care at little cost, while keeping your current staff without any outsourcing.
Maximize your ROI today with Diasyst.

[See How It Works](#) [Our Research & Results](#)

Diasyst Training

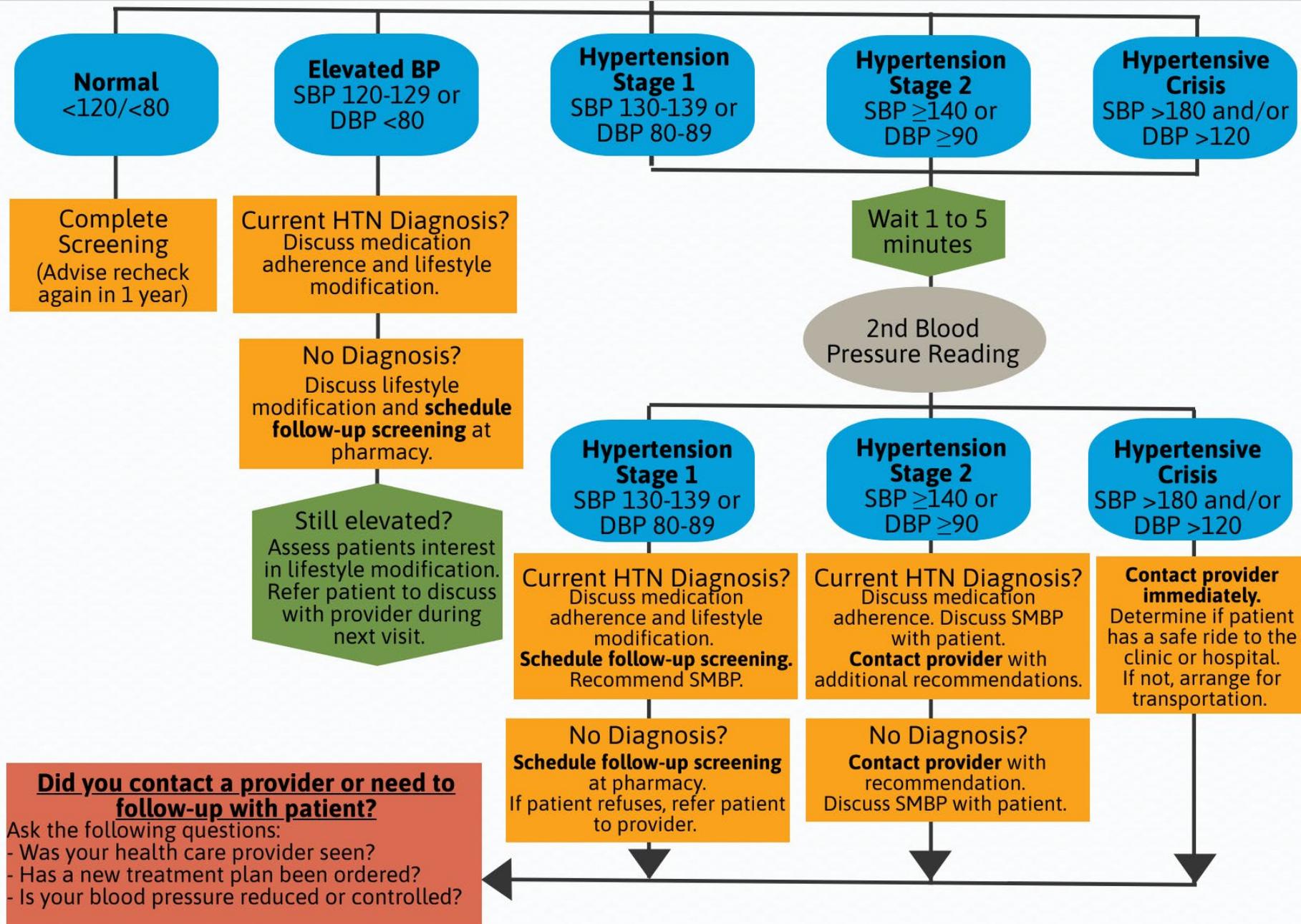
- This platform allows you to track patients remotely.
- Not all sites will be participating in the blood pressure cuff loaner program.
- We have pre-recorded a training on the Diasyst platform – which will be sent out after the training.

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 ▾

BP Screening Algorithm



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) ≥ 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 ²)	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.*

SMBP Case

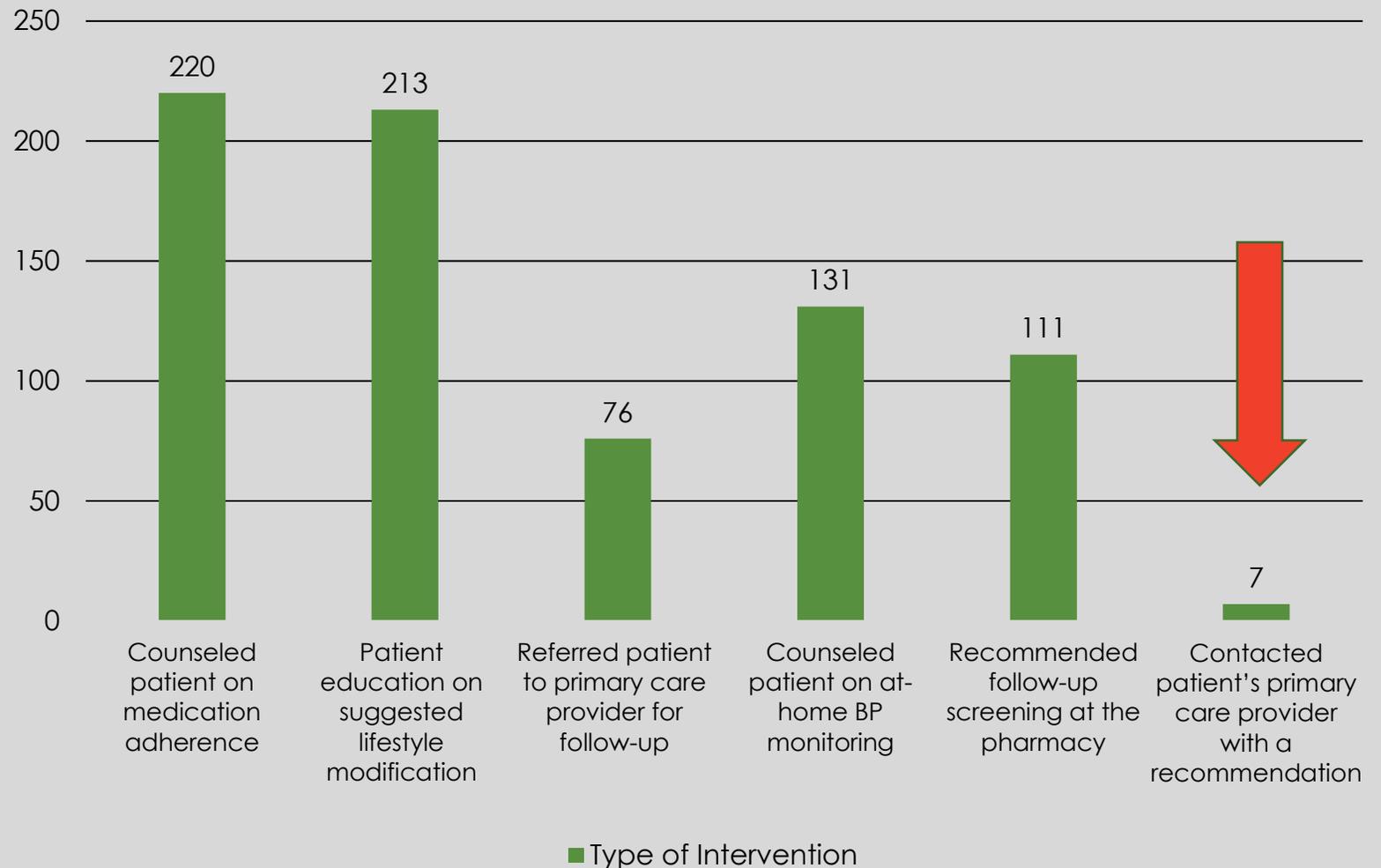
- AB brought in SMBP readings from home. The last 3 BP readings were in the 140's for systolic and in the 80's for diastolic. Patient was on low dose of hypertension medication.
- Student contacted AB's PCP with recommendation for dose increase, educated patient on lifestyle modifications, demonstrated how to check for cuff accuracy, and logged information in SMBP Training Log.

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

Hypertension/High Blood Pressure Interventions 2020-2021

- # of Patients Screened: 391
 - Systolic BP: 323 had an elevated reading (greater than 120)
 - 82.6% were elevated
 - Diastolic BP: 209 had an elevated reading (greater than 80)
 - 53.4% were elevated
- Who completed the screen?
 - 380 done by students, 11 assisted by a pharmacist
- How long did this intervention take?
 - Less than 3 minutes – (n=21)
 - 3 to 5 minutes – (n=43)
 - More than 5 minutes – (n=32)

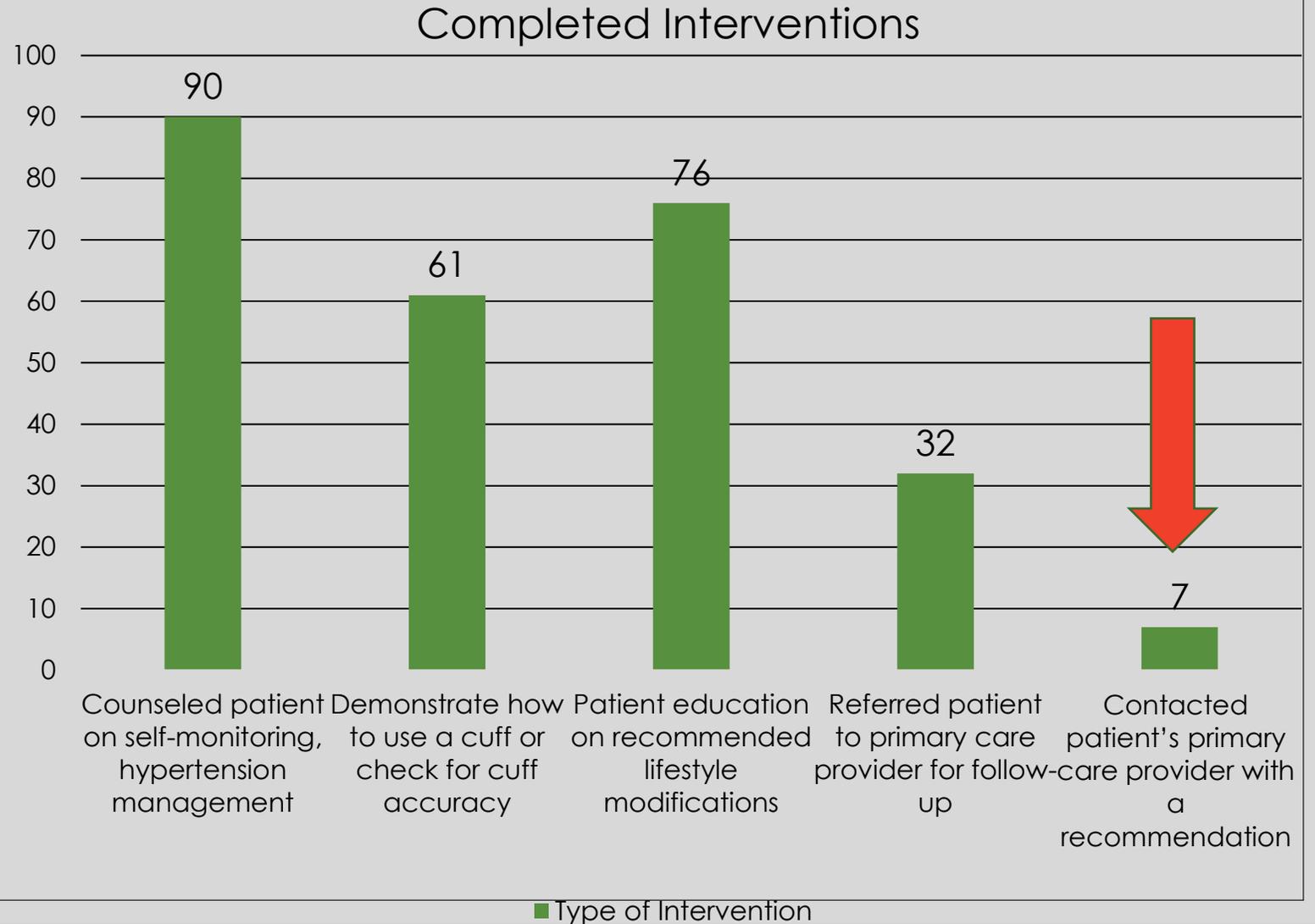


Success Stories from Students

- Patient presented for MTM blood pressure of 150/88 upon repeat blood pressure after waiting 5 minutes and having patient try to relax blood pressure was 145/84. I reviewed patient's labs and current hypertension therapy and sent a recommendation to their PCP 1 to start spironolactone 25mg PO daily in this patient.
- Patient was extremely hypertensive; I took her blood pressure 2 different times, and she was feeling very anxious. Had her husband with her and I discussed going to the hospital that day and she said she had anxiety meds she wanted to take first and then if it did not help, she would go in. She was not a current patient of Gateways so I was unable to find her providers information at that time to discuss it with him.
- Contacted patient's provider regarding a contraindicated blood pressure medication the patient was prescribed and his current CHF diagnosis. His blood pressure was uncontrolled, and it could have been worsening his CHF so there was no reason for him to continue it at the time.
- Patient stopped taking one of her blood pressure medications due to feeling dizzy and not well after taking it. PCP had quadrupled the dose of the medication at the last visit (patient went from losartan 25 mg once daily to 50 mg BID). Pharmacy recommended that PCP reduce patient's dose to 50 mg once daily. Once patient is adherent to that dose, if blood pressure is still elevated, suggest further adjustments of blood pressure medications.

Self-Measured Blood Pressure

- # of Patients Screened: 94
 - Systolic BP: 76 had an elevated reading over 120
 - 81% were elevated
 - Diastolic BP: 57 had an elevated reading over 80
 - 61% were elevated
- Who completed the screen?
 - All 94 done by students
- How long did this intervention take?
 - Less than 5 minutes – (n=23)
 - 5 to 10 minutes – (n=30)
 - More than 10 minutes – (n=13)



Success Stories from Students

- Patient's blood pressure was uncontrolled while consistently taking his medications (per patient). The patient was very frustrated because he mentioned he had spoken to his provider before about his consistently high blood pressure readings but said that the provider never changed his medications.
- Patient needed help choosing a BP monitor/cuff. Made recommendation and sold monitor to her.
- I contacted patient's primary care provider for a dose increase because his last 3 blood pressure readings have been in the 140's for SBP and in the 80's for DBP. And patient was not in the therapeutic dose range of his medication



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.

Immunization Case

- FR presents to the pharmacy for monthly refills. Student screens for vaccines indicated and finds FR is eligible for Shingrix.
- FR is willing and student delivered vaccine.
- Student entered information into Immunization log and Immunization Information System.



MEDICATION THERAPY MANAGEMENT (MTM) AND FOLLOW-UPS

Pharmacist Patient-Care Process

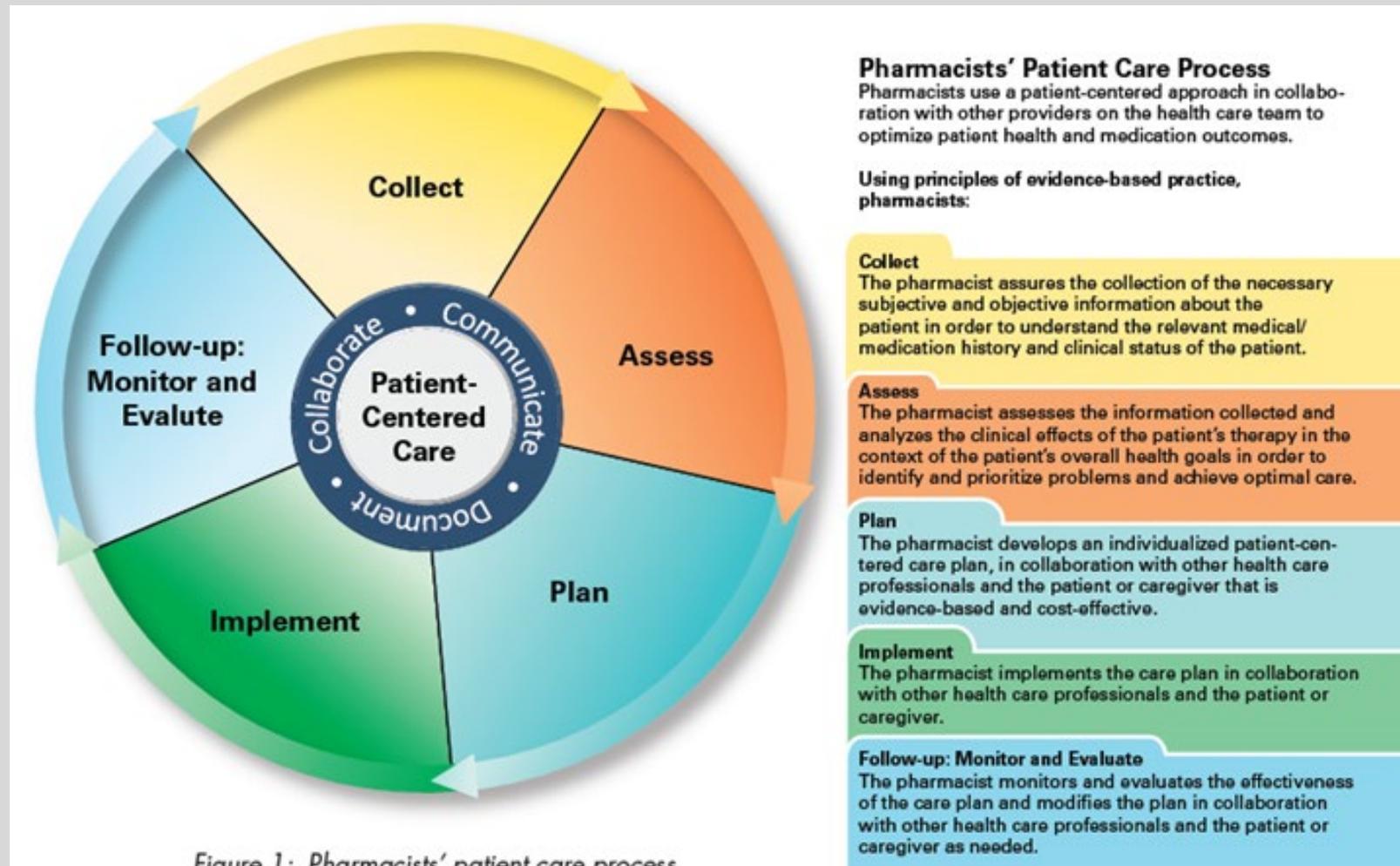


Figure 1: Pharmacists' patient care process

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

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
 - Current literature
 - Handbook
- Patient
 - Smoking cessation
 - Disease specific
 - Health/nutrition

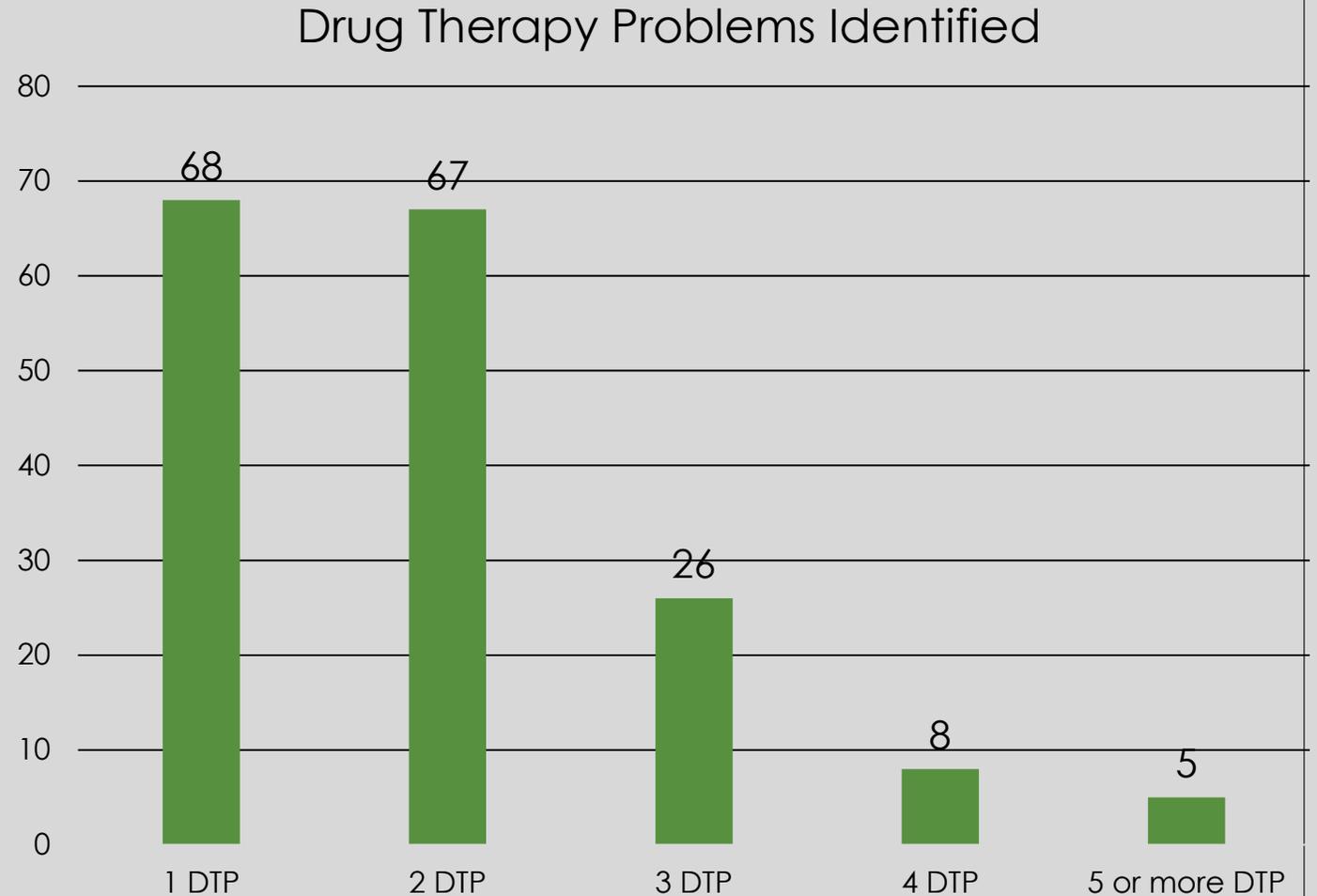
MTM/DTP Case

- Upon prescription verification, a student noticed a drug-drug-interaction for diltiazem and simvastatin.
- Student reached out to provider to try to modify therapy to avoid adverse effects.
- Student explained interaction to patient and reason for contacting provider.

MTM – Student Interventions

2020-2021

- 203 MTMs conducted
 - Provided thru 3rd Party:
 - About the Patient (n=10)
 - Outcomes (n=48)
 - Other (n=46)
 - Who completed the screen?
 - 195 were completed by students
 - How long did this intervention take? *
 - Less than 15 minutes – (n=54)
 - 15 to 30 minutes – (n=100)
 - 30 to 45 minutes – (n=25)
 - 45 to 60 minutes – (n=14)
 - More than 60 minutes – (n=5)



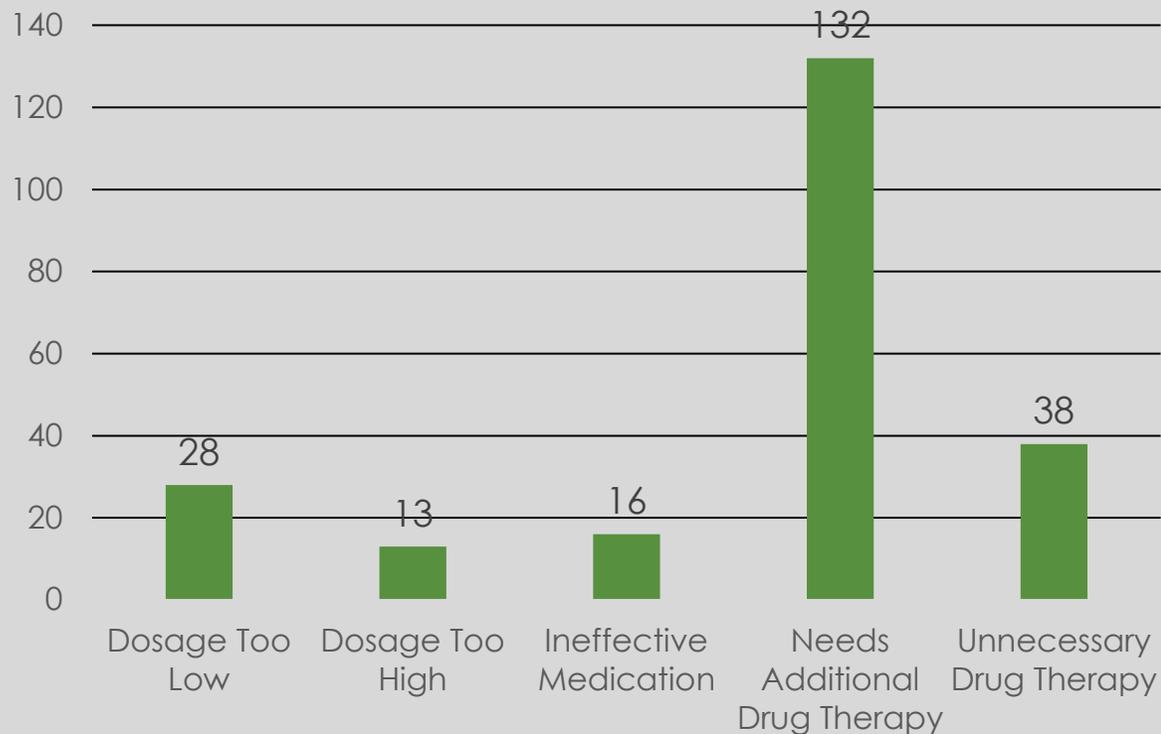
MTM – Student Interventions

2020-2021

- Drug Therapy Problems

- A total of 338 were identified

Drug Therapy Problems Identified



- Dosage Too Low/Too High (n=41)
 - Wrong dose (n=33)
- Ineffective Medication (n=16)
 - More effective drug available (n=8)
- Needs Additional Drug Therapy (n=132)
 - Untreated condition (n=34)
 - Preventative/prophylactic (n=19)
 - Immunizations (n=63)
- Unnecessary Drug Therapy (n=38)
 - No medical indication (n=18)
 - Duplicate therapy (n=13)
- Experiencing Adverse Drug Reaction (n=48)
 - Undesirable effect (n=31)
- Adherence (n=55)
 - Patient prefers not to take (n=14)
 - Patient forgets to take (n=19)
- Cost Containment (n=8)
 - More cost-effective medication available (n=5)

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:

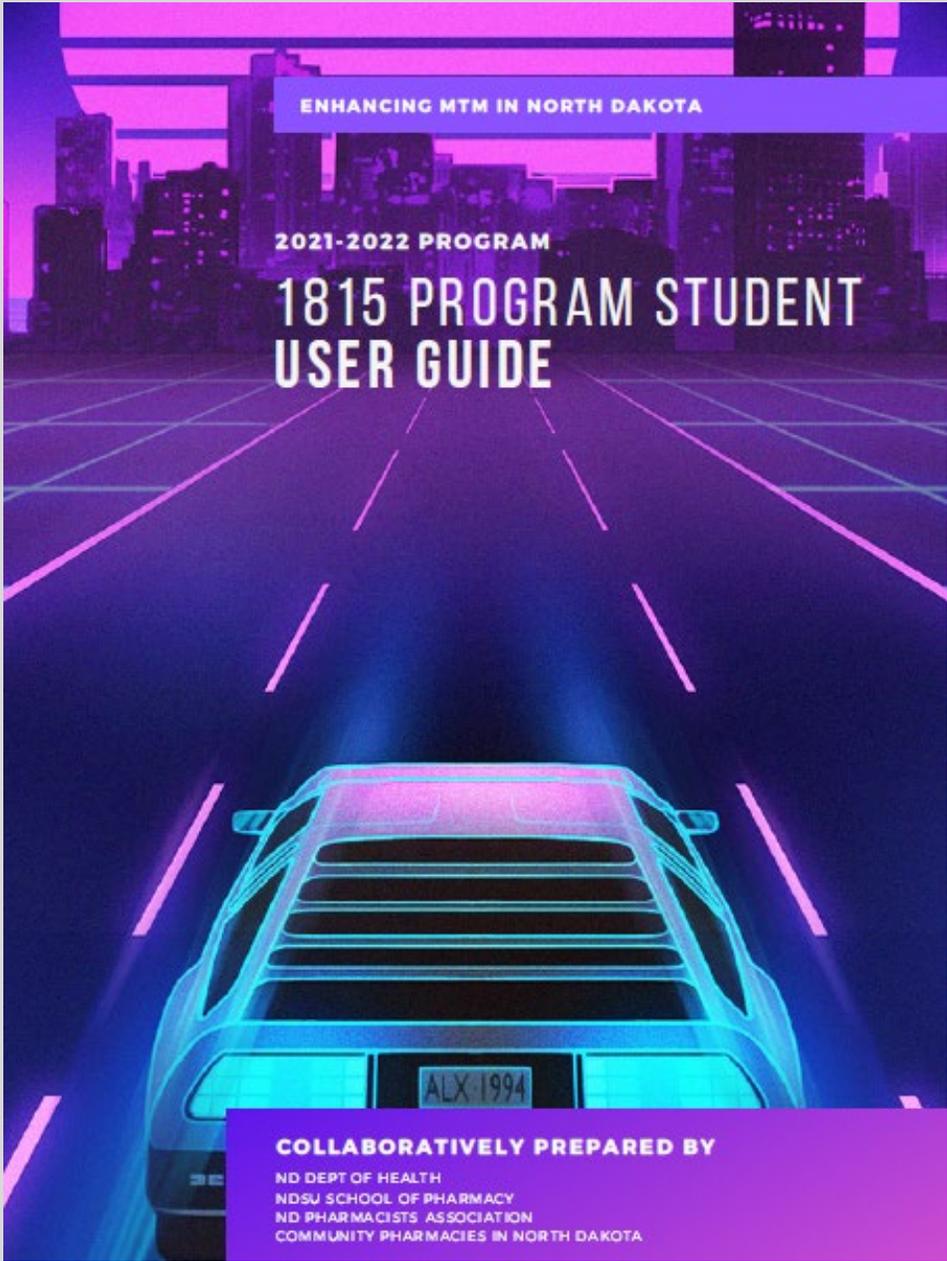
- Medication Adherence
- Nutrition & Physical Activity
- Obesity
- Diabetes Management
- Cardiovascular Disease
- Smoking Cessation

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.





PHARMACY MANUAL



ENHANCING MTM IN NORTH DAKOTA

2021-2022 PROGRAM

1815 PROGRAM STUDENT USER GUIDE

COLLABORATIVELY PREPARED BY

ND DEPT OF HEALTH
NDSU SCHOOL OF PHARMACY
ND PHARMACISTS ASSOCIATION
COMMUNITY PHARMACIES IN NORTH DAKOTA

Weekly Targets

The infographic is a blue-to-teal gradient rectangle containing seven white circles with black outlines, each containing a number. To the right of each circle is a bold title and a description of the target. The targets are: 4 MTM Workups, 5 Blood Pressure Assessment, 5 Prediabetes Screen + Refer, 2 Self-Measured BP Loaner+Education, 5 Immunizations, 2 Diabetes Assessment, and 5 Patient/Provider Follow-ups.

4	MTM WORKUPS 2-HYPERTENSION PTS PER WEEK 2-DIABETES PTS PER WEEK	5	BLOOD PRESSURE ASSESSMENT TAKE 5 BLOOD PRESSURES EACH WEEK
5	PREDIABETES SCREEN + REFER SCREEN 5 PER WEEK REFER 1 PER WEEK (NDC3)	2	SELF-MEASURED BP LOANER+EDUCATION 1 OF EACH PER WEEK
5	IMMUNIZATIONS SCREEN AND OFFER TO DELIVER 5 PTS VACCINES BEYOND FLU EACH WEEK	2	DIABETES ASSESSMENT REVIEW MOST RECENT A1C 2 PER WEEK
5	PATIENT/PROVIDER FOLLOW-UPS ...THOSE REFERRALS OR RECOMMENDATIONS YOU MADE? REFERRING ISNT ENOUGH, FOLLOW-UP TO MAKE SURE IT ACTUALLY HAPPENED! 5 FOLLOW UPS PER WEEK, CAN BE ON MTM OR NEED FOR LABS, ETC.		

DO MORE. WITH ONE PATIENT

LET'S GET EFFICIENT. LET'S GET CRAFTY. LET'S GET RELENTLESS.

HOW CAN I DO THIS? HOW CAN I HIT THESE NUMBERS
EACH WEEK?

THERE WERE INDEED CHALLENGES

WE SURE AREN'T PERFECT. HELP MAKE US MORE PERFECT.

WHAT DIDN'T WORK SO GREAT IN 2020-21

It's not all rainbow skies and gumdrop smiles here in the pharmacy. We do have areas of improvement from the pilot and we think you can do it.

FOLLOW UP AND EVALUATION

WE'RE HERE TO SUPPORT YOUR WORK. AND COLLECT YOUR DATA.

WE WANT TO KNOW ABOUT THE IMPACT YOU'RE MAKING

At the end of each week please complete the data spreadsheet and rotation survey. We're asking nicely but it's required.

At the end of the rotation please complete final data spreadsheet, and rotation survey. Again, asking nicely (but it's required).

BLOOD PRESSURE ASSESSMENT

TAKE SOME BP. NOT GOOD? RECHECK! HELP THEM!

SCREEN 5 EACH WEEK

TRY LOOKING THROUGH THE PICK-UP BINS TO SEE WHO IS ON HTN MEDS. TARGET THEM WITH A NOTE TO DO A BP AT PICKUP.

MANY STUDENTS SUCCEED AT ASKING PTS TO DO A BP DURING COUNSELING SESSIONS. TECHS MAY HELP WITH RECRUITING AS WELL.

IF BP IS ELEVATED, RECHECK IT. MAKE A PLAN FOR FOLLOWUP AND THEN FOLLOW UP! USE THE BLOOD PRESSURE SCREENING ALGORITHM TOOL TO HELP.

SMBP TRAINING + LOANER

SMBP IS THE GOLD STANDARD AND GIVES CREDIBILITY



TRAIN 1 LOAN 1

HEY, A LOT OF PEOPLE DON'T WANT TO SPEND THE COIN TO BUY A BLOOD PRESSURE CUFF. WE GET IT.

THAT'S WHY WE ARE INSTALLING BP CUFF LOANER PROGRAMS FOR SMBP (SELF-MONITORED BLOOD PRESSURE).

EACH WEEK, RECRUIT A PATIENT TO JOIN THE LOANER PROGRAM.

EACH WEEK, TRAIN A PATIENT ON HOW TO DO SMBP PROPERLY. SAME PERSON? THAT'S COOL! WE ARE SUPPLYING GREAT RESOURCES TO HELP TRAIN PATIENTS PROPERLY.

THIS IS A GREAT AREA FOR FOLLOW-UP. YOU WILL BE ABLE TO VIEW PATIENT BP READINGS IN REAL TIME THROUGH THE CLOUD, WHICH GIVES YOU HARD DATA TO MAKE BETTER REFERRALS TO THEIR MEDICAL STAFF.

PATIENTS WILL HAVE THE CUFFS FOR 2-3 WEEKS. DEFINITELY BE SURE TO FOLLOW UP WITH PATIENTS AT LEAST WEEKLY ABOUT THEIR READINGS AND TO REMIND THEM TO KEEP TESTING. ALSO FOLLOW UP TO ENSURE THE CUFFS ARE RETURNED.

PREDIABETES SCREEN + REFER

SCREENING IS GOOD. BUT IT CAN BE BETTER.



PERFORM PREDIABETES SCREENING AT MED PICKUP OR MEDICATION COUNSELING SESSION. WORKS PRETTY WELL.

REFER AGREEABLE PATIENTS TO NATIONAL DIABETES PREVENTION PROGRAM (NDPP) THROUGH [NDC3.ORG](https://www.ndc3.org)

SCREEN 5 REFER 1

...ACTUALLY REFER, THOUGH...TALK PAST THE SALE AND SEND IN THEIR INFO TO THE COORDINATOR VIA [NDC3.ORG](https://www.ndc3.org) UNLESS THEY REALLY, REALLY REFUSE.

AS NOT EVERY PATIENT WILL COMPLETE SCREENING WHEN APPROACHED, WE SUGGEST IDENTIFYING AT LEAST 5 MEN AND 5 WOMEN \geq 50 YEARS OLD TAKING HTN MEDS WEEKLY IN AN ATTEMPT TO SCREEN AT LEAST 5 TOTAL PER WEEK.

DIABETES ASSESSMENT

GET THOSE A1C'S UP TO DATE



CHECK FOR RECENT A1C

EACH WEEK, TARGET TWO DIABETES PATIENTS FOR AN A1C REVIEW

YOU CAN REVIEW THE PATIENT A1C ON NDHIN

IF IT'S NOT UP TO DATE, YOUR PHARMACY IS SUPPLIED WITH POC A1C TESTS THROUGH THIS PROGRAM SO YOU CAN CHECK ON THE SPOT

THIS ALLOWS YOU TO CLOSE A VERY COMMON GAP IN DIABETES CARE, GIVES YOU OPPORTUNITY TO FOLLOW UP WITH PATIENT AND PROVIDER, AND PERHAPS EVEN GETS YOU TO PERFORM A POC TEST IN THE PHARM.

IMMUNIZATION SCREENING

SCREEN. STICK. REPEAT.



USE THE NORTH DAKOTA IMMUNIZATION INFORMATION SYSTEM (NDIIS) TO SCREEN 5 PATIENTS PER WEEK FOR IMMUNIZATION NEEDS.

SCREEN AND ADMINISTER

FOR ANY GAPS IDENTIFIED, RECRUIT PATIENTS FOR A VACCINE VISIT AND ADMINISTER THE NEEDED VACCINE(S).

FLU VACCINE AND COVID NEEDS DON'T COUNT. THEY'RE JUST TOO EASY TO GET. WE NEED TO LOOK AT SOME CHRONIC DISEASE NEEDS.

PATIENT/PROVIDER FOLLOW-UP

CLOSE THE LOOP. ADVOCATE FOR YOUR PATIENTS.



EACH WEEK, LOOK FOR 5 RECOMMENDATIONS/REFERRALS/PATIENTS WHO JUST NEED MONITORING OF THEIR CARE. FOLLOW UP WITH THE PATIENT AND/OR PROVIDER AS APPROPRIATE.

FOLLOW-UP WITH GUSTO

WE NEED YOU TO MOVE US PAST MAKING A RECOMMENDATION ALONE AND MOVING ON...WE NEED YOU TO ADVOCATE FOR YOUR PATIENTS BY ENSURING THAT IF THEY NEEDED AN APPOINTMENT OR SOME LAB WORK OR A MED CHANGE THAT IT GOT ADDRESSED. SOMETIMES A PATIENT PHYSICIAN ULTIMATELY DISAGREES WITH YOUR RECOMMENDATION AND DECLINES IT--THAT'S OK, WE JUST HAVE TO MAKE SURE WE GET PAST THE POINT WHERE PATIENTS SAY 'I'LL THINK ABOUT IT' AS THEY LEAVE THE PHARMACY.

REMEMBER, THERE WERE OVER 300 DRUG THERAPY PROBLEMS IDENTIFIED BY STUDENTS LAST YEAR. IDENTIFYING PROBLEMS ISN'T GOING TO BE ENOUGH FOR PHARMACY IN THE FUTURE, YOU'RE GOING TO INCREASINGLY BE RESPONSIBLE FOR RESULTS. STAND UP FOR THOSE PATIENTS, LET A LITTLE BIT OF BULLDOG OUT AND KEEP FOLLOWING UP.

CLOSE THE LOOP!

MTM EXPANSION

MAKE MTM MATTER A BIT MORE.



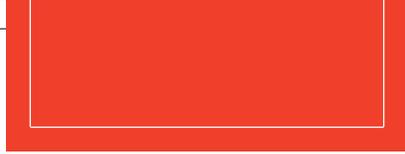
TWO DM MTM
TWO HTN MTM

THE GOAL IS TO **COMPLETE 2 HTN REVIEWS AND 2 DIABETES REVIEWS EACH WEEK.**

IF THERE ARE PAID CMR OPPORTUNITIES ON DM OR HTN PATIENTS AT THE PHARMACY, GREAT!

IF NOT, THEN RECRUIT PATIENTS FOR A HIGH QUALITY CMR TO GET THEM CLOSER TO GUIDELINE CARE.

MANY STUDENTS HAD SUCCESS IN DOING THE WORKUPS FIRST AND THEN ATTACHING THEM TO THE BAG FOR A DISCUSSION. THE SKY IS THE LIMIT, TEST YOURSELF TO FIND INNOVATIVE METHODS TO CONNECT.



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](#)
[Student Website for Resources](#)



QUESTIONS?



BREAKOUT TIME

Let's provide you a few instructions!