



Implementation of a Student Program to Expand Patient Care Services in Community Pharmacies Across North Dakota

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DISCLOSURES

We have no relevant financial relationships to disclose.

Learning Objectives

- 1. Identify ways student pharmacists can assist rural community pharmacies in expanding pharmacy services**
- 2. Report the impact student pharmacists have made on disease prevention and treatment related to hypertension, hyperlipidemia, and diabetes**
- 3. Explain how health profession education programs can assist rural communities in disease prevention and promotion strategies**

Background

1815 Grant (CDC-RFA-DP18-1815)

- Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke Grant
- Objective: Implement and evaluate evidence-based strategies to prevent and control diabetes and heart disease especially for underserved populations in North Dakota

Pharmacy Partners:

- North Dakota State University (NDSU) School of Pharmacy
- North Dakota Pharmacists Association
- Health Systems (Altru Health and Trinity Health)



Preparation

Student Funding

- APPE (Advanced Pharmacy Practice Experiences)
- Funding for travel/cost of living

Site Considerations

- Community Pharmacies **
- Housing available
- Innovative in practice (immunizations, Medication Therapy Management, etc.)

Student Application Process

- Advertising
- Memorandums of Understanding (MOUs)
- Notification prior to APPE match

Implementation

Tasks

- Hypertension
- Prediabetes
- Diabetes
- Immunization(s)
- Self-measured Blood Pressure (SMBP)
- MTM (Medication Therapy Management)

Data Collection

- Pre/Post Rotation Students
- Impact – Student Weekly Task Log

Training

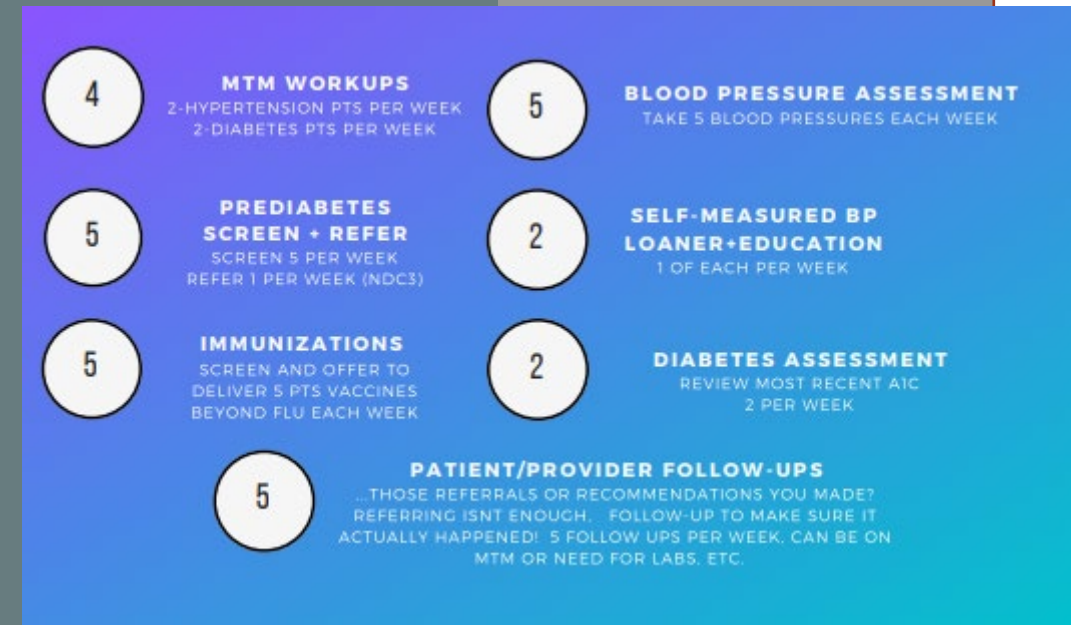
- Preceptors
- Students



Weekly Objectives

Student Weekly Targets

- **Hypertension –**
 - 5 interventions
- **Prediabetes –**
 - 5 screenings,
 - with 1 referral to the National DPP.
- **Diabetes –**
 - 2 interventions
- **Immunization –**
 - 5 evaluations and deliveries
- **Self-measured Blood Pressure (SMBP) –**
 - 1 loaner cuff consultation and
 - 2 SMBP trainings
- **MTM (Medication Therapy Management) –**
 - 4 workups (2 for each hypertension and diabetes)



Impact

(through 14 student rotations – 70 week.)

Hypertension

- 658 patients screened
- 84% elevated

Prediabetes

- 578 patients screened
- 55% high risk

Immunizations

- 1,144 patients screened
- 1,153 recommended
- 657 delivered (57%)

MTM

- 382 visits conducted
- 587 Drug Therapy Problems (DTPs) identified

Collaborative Practice Agreements

- 2 implemented



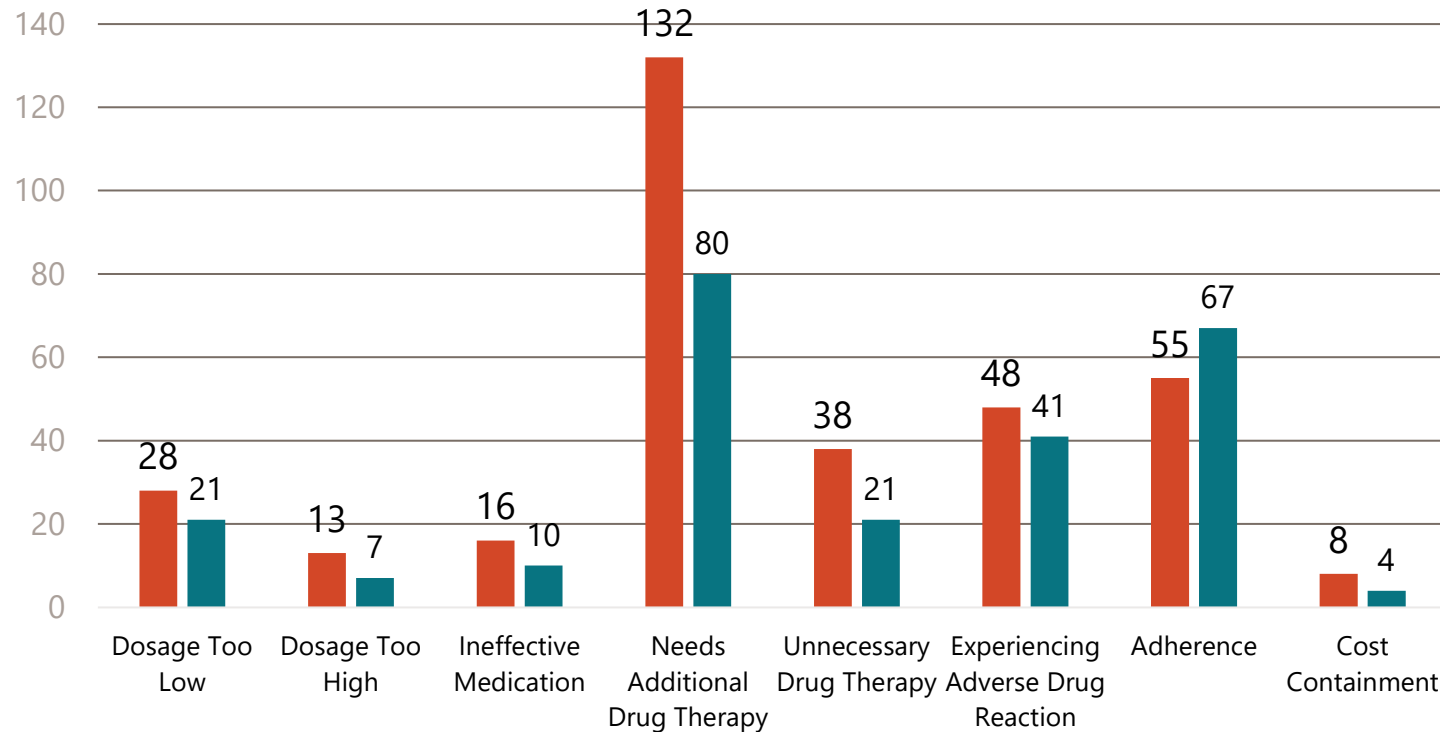
MTM – STUDENT INTERVENTIONS

2020-2021 (ORANGE); 2021-FEB 2022 (TEAL)

- Drug Therapy Problems

- A total of 587 were identified

Drug Therapy Problems Identified



- Dosage Too Low/Too High (n=69)
 - Wrong dose (n=47)
- Ineffective Medication (n=26)
 - More effective drug available (n=12)
- Needs Additional Drug Therapy (n=212)
 - Untreated condition (n=50)
 - Preventative/prophylactic (n=31)
 - Immunizations (n=105)
- Unnecessary Drug Therapy (n=59)
 - No medical indication (n=21)
 - Duplicate therapy (n=23)
- Experiencing Adverse Drug Reaction (n=89)
 - Undesirable effect (n=53)
- Adherence (n=122)
 - Patient prefers not to take (n=23)
 - Patient forgets to take (n=53)
- Cost Containment (n=12)
 - More cost-effective medication available (n=5)

What opportunities currently exist?

Growing students to do MORE

Secret Sauce:

- Building better sites
- Layout for success (train, expect more)
- Expectations mutually beneficial



Lessons Learned

Students **NEED** to have an action step – and follow up!

SMBP Loaner Cuff Program

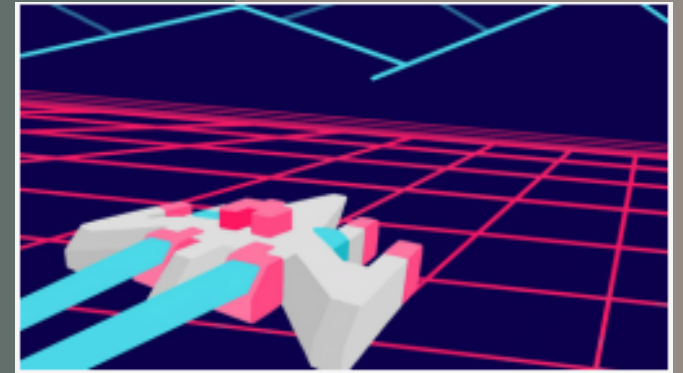
A1c screening for diabetes

Referral program through NDC3

Bundle patient time

ex: **COVID vaccine** – also provide **Prediabetes screening** while they're waiting.

How to approach patients to do something "voluntary"



Future of Pharmacy

Providing opportunities can grow pharmacy practice.

Virtual Diabetes Prevention Program through NPhA.

Sustainability of the 1815 pilot, work and culture, long after the students are gone. Preceptors trained by students after each rotation.

Looking to scale! We want to operationalize this into our Future!

- Find this project interesting?
- Want to offer more at your pharmacy?
- Contact Tiffany – tknauf@nd.gov



Thank you!

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Questions?

