



**Sweet Facts about
Pharmacists in Diabetes
(DM) Care and Education:**

*Why you should have a
pharmacist on your
interdisciplinary team.*

Aimee Reinhard

Pharm D



**National Clinical Pharmacy Specialist (NCPS) and
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Certification of Accreditation

ADCES Diabetes Education Accreditation Program (DEAP)
Certifies that



Gallup Indian Medical Center
ID# 210053
9/1/2020 - 8/31/2024

Having met all applicable standards and the requirements
of the association is granted accreditation

A handwritten signature in black ink, appearing to read "Leslie E. Kolb".

Leslie E. Kolb, RN, BSN, MBA
Chief Science and Practice Officer

A handwritten signature in black ink, appearing to read "Sacha Uelman".

Sacha Uelman, RDN, CDE
Director of Diabetes Education
and Prevention Programs

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Pretest:

Q1. What are some skills clinical pharmacists and pharmacist clinicians are able to provide?

- a) Provide comprehensive education
- b) Provide information on technology advancements
- c) Manage comorbidities
- d) Decrease medication costs
- e) B & D
- f) All of the above

Pretest:

Q2. What are the two main differences between a clinical pharmacist and a pharmacist clinician? (Select one correct answer)

- a) One can conduct physical exams and bill under their own license and the other cannot
- b) Licenses are the same but their collaborative practices are different
- c) One can make referrals and order labs and the other cannot
- d) None of the above

Pretest:

Q3. What is a unique piece of information that a pharmacist can bring to your interdisciplinary team?

- a) Immunizations
- b) Intensive Medication Education
- c) Insurance Coverage
- d) Detailed Comprehensive Medical History
- e) SMART Goal Setting

Description:

This session is designed to showcase the integral role pharmacists play on a diabetes interdisciplinary team and their roles at different levels of diabetes care.

It will showcase their contributions in medication skills, diabetes knowledge and support; to effectively manage chronic diseases and improve patient outcomes.

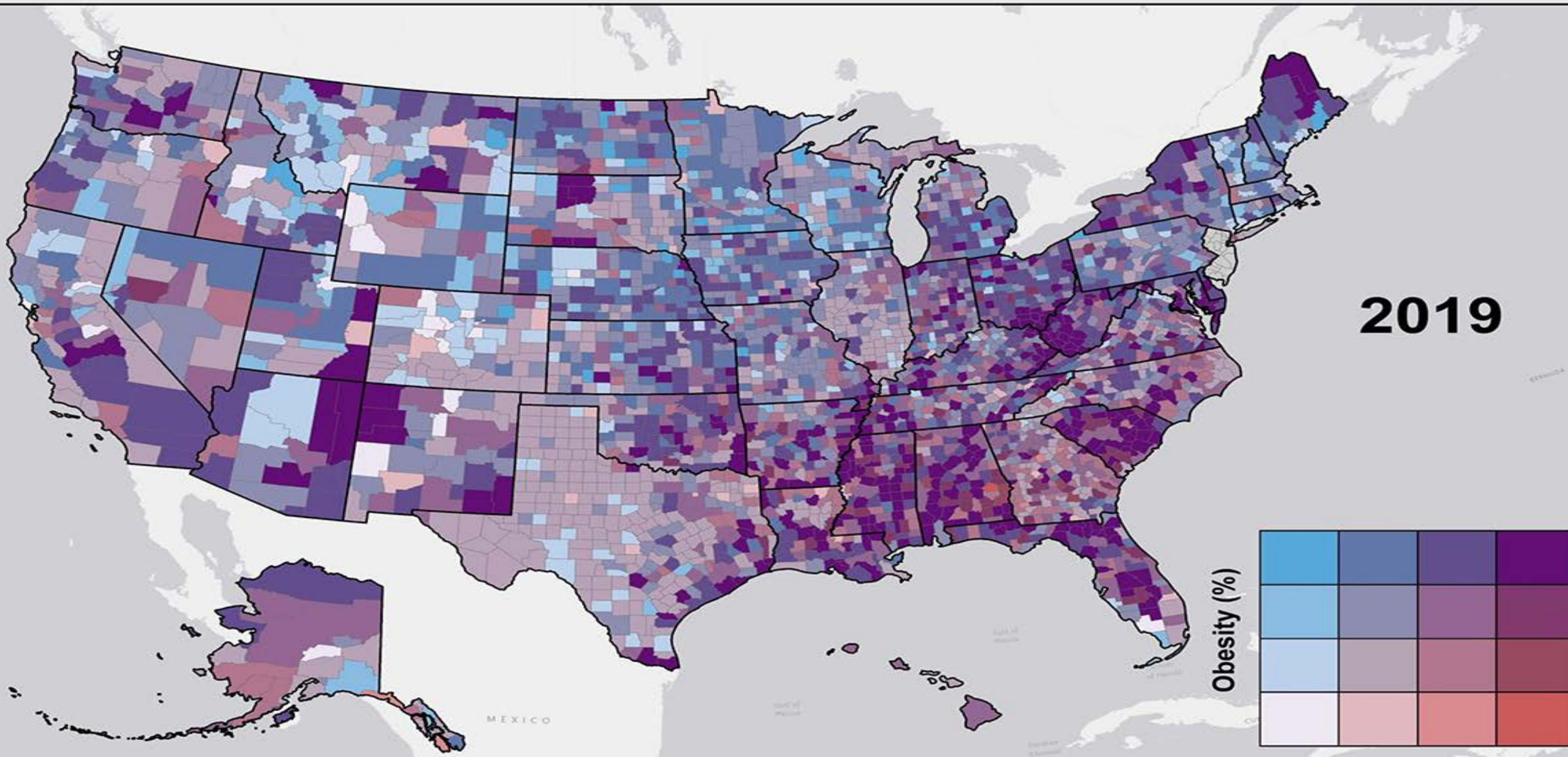
Objectives:

1. Examine the role of pharmacists at different levels of diabetes care
2. Identify the skills clinical pharmacists and pharmacist clinicians can offer as members of the interdisciplinary healthcare team to improve diabetes management
3. Enlist and engage pharmacists to implement collaborative practices that lead to the improvement of diabetes management outcomes

General Background:

- **“The demanding work involved in caring for the large number of people diagnosed with diabetes could overwhelm both resourced and under resourced locations” [1]**
 - 11.3% of the US population has diabetes (~ 37.3 million people) [2]
 - 38.0% of the adult US population have prediabetes (~ 96 million people) [2]
- **“The increase in people with diabetes is occurring in record numbers in all countries across the planet” [1]**
- **“Prediabetes has also become an epidemic” [1]**
- **The composition of person-centered care teams can vary but should reflect the diversity of the communities served by the primary care practice [3]**

Diabetes and Obesity Map [2]



Diagnosed Diabetes and Obesity estimates are percentage; natural breaks were used to create categories using all data from 2004-2019; Diagnosed Diabetes (%): <7.1, 7.1-8.6, 8.6-10.5, >10.5; Obesity (%): <21.2, 21.2-25.5, 25.5-30.5, >30.5

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Background for Indian Health Services (IHS):

-
- **Approximately 1.6 million AI/AN people receive health care from IHS services[4]**
 - **Diabetes prevalence as of 2017: 14.6% [5]**
 - **Decrease from 15.4% in 2013**
 - **Diabetes-Related Mortality in 2017: 34.4 per 100,000 population [5]**
 - **Kidney Failure in 2013: 26.5 per 100,000 population[5]**
 - **Hospitalizations for Uncontrolled Diabetes in 2015: 9.4 per 100,000 population[5]**

Background for Indian Health Services (IHS):

- **Diabetes Care and Outcomes Audit (~1996 to 2019)[5]**
 - Average blood sugar has decreased by 10%
 - Average LDL has decreased by 24% and is well controlled overall
 - Average blood pressure has been well controlled overall for more than 20 years

Background for New Mexico:

“Burden of DM in New Mexico” [6]

- 12.3% of the adult population have diagnosed diabetes
- 36.1% of the adult population have diagnosed prediabetes
- Medical expenses approximately 2.3 times higher
 - Direct medical expenses: \$1.5 Billion in 2017
 - Indirect medical expenses: \$475 million
 - Total: estimated \$2 billion each year

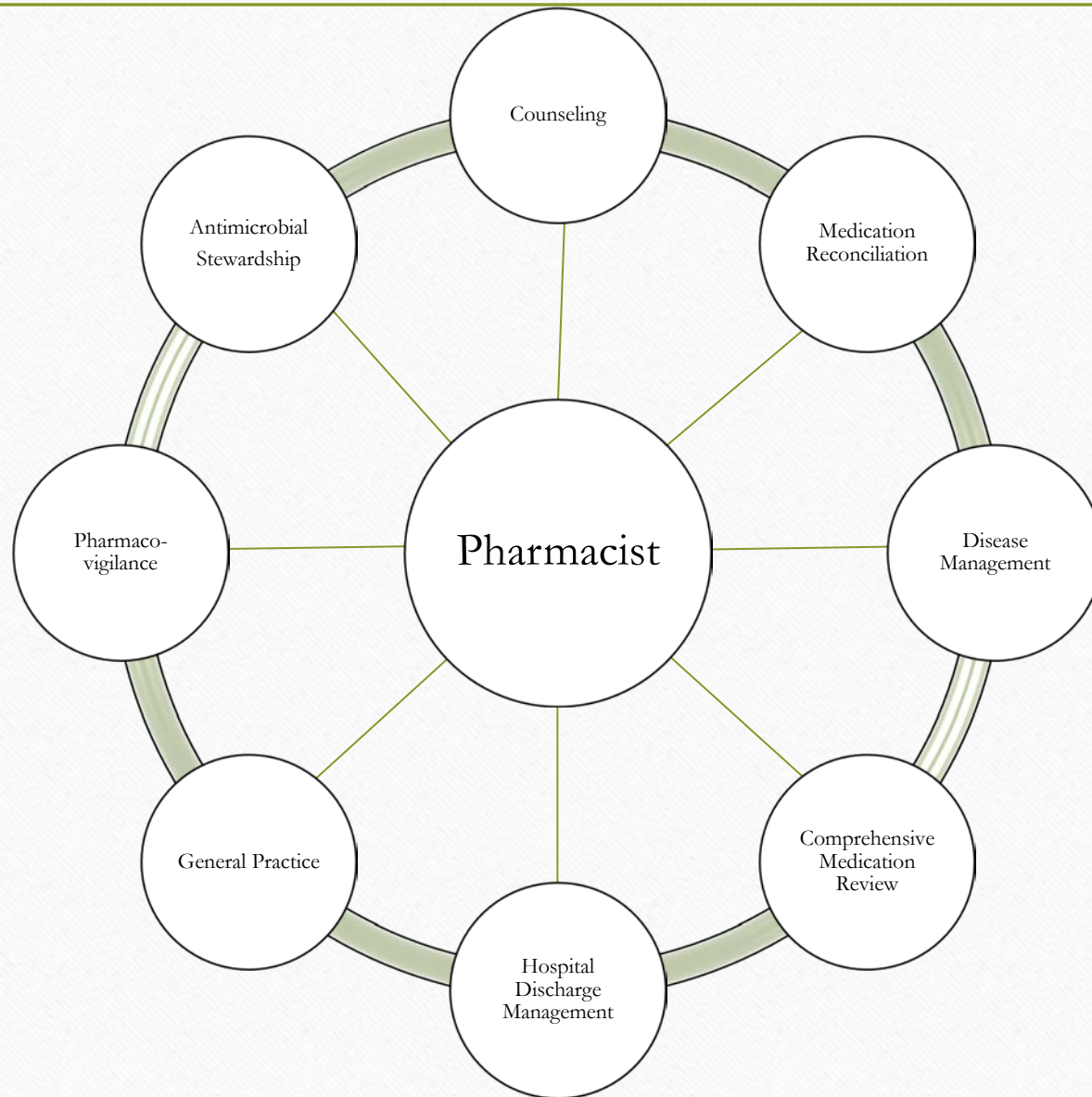
Background for New Mexico:

- Sixth leading cause of death [7]
 - McKinley County diabetes deaths = 63.7% [8]
 - New Mexico diabetes deaths = 26.9% [8]
 - U.S. diabetes deaths = 22.6% [8]

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“Resistance training is just as important as cardio. Train yourself to resist chocolate, pastries, fried foods, beer, pizza....”



Areas Where Pharmacists Provide
DM Care in the IHS:

- **Pharmacy Provided Care and Education**
- **Pharmacists in Diabetes Care and Education Programs**
- **Pharmacy Clinicians in the out-patient setting**



Pharmacy Provided
Care and Education

Unique Position:

- **DM patients tend to have more medications than patients without DM**
- **This leads to a greater number of encounters per year by a pharmacist verses their primary care provider**
- **Teaching opportunities while they are a captured audience**
 - Counseling Rooms
 - In-patient and Emergency Department

Medication Education:

- **Mechanism of Action (MOA)**

- Oral Medications
- Injectable Medications
- Inhaled Medications
- Patches
- Explains why timing of medications are important, and the need for food or not

Medication Education:

- **Translate the direction for use (examples):**
 - Take twice a day
 - Take weekly
 - Take with food (before or after)
 - When to discard and how to store
- **Demonstrate how to administer medication**

Monitors:

- **Learn which monitors are used by your site, and how to use them**
 - Blood Glucose Monitor/Sensors
 - Home Blood Pressure Monitor
- **Teach the patient and use teach-back strategies**
- **Answer questions**
- **Know which apps might link with the specific monitor**

Advances in Technology:

- **Learn what is available at your site and how to use them**
 - Continuous Glucose Monitors (CGM)
 - Insulin Pumps
 - Smart Pens and Insulin Delivery
 - Connected pens
 - Traditional pens
 - Patches
 - Inhalable Devices
 - Glucagon Nasal Powder
- **Apps and Digital Therapeutics**
 - **Danatech**
 - <https://www.diabeteseducator.org/danatech/home>
 - Offers device training
 - Offers a free CGM expert certificate program
 - Online Learning
 - Educational Podcasts and Videos

Other Teachings in Two Minute or Less (examples):

- **Treatment of hypo- or hyperglycemia**
- **How to get a better glucose stick**
- **Signs and symptoms of hypoglycemia**
- **Explaining the Jargon**
 - “A1c is too high”
 - “Not getting enough exercise”
 - “Eat less carbs”

One Minute Question and Answer Opportunities:

- **Answer questions the patient might have regarding DM**
- **Ask (examples):**
 - “Tell me how you mix your NPH and Regular insulins?”
 - “Do you take your metformin before or after your last bite of food?”
 - “Where do you store your insulin?”
 - “I see you are on a small number of units/day. How do you remind yourself to dispose of your insulin?”
 - “What day of the week do you inject your semaglutide?”

Referrals:

- **Questions or information that may require more time... refer them to the DM Program**
 - Enter a consult to the DM Program
 - Hand out a brochure of DM services
 - Provide the DM Program's phone number and a point of contact for a soft pass off when possible

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**“You went camping and a bear mistook your blood for honey.
Would you mind if I ordered a diabetes test for you?”**



Pharmacists in Diabetes Care
and Education Programs

Greater Use of Pharmacy License:

- **Clinical Practice Agreement**
 - Basically the Do's and Do Not's in Clinic
 - Practice at the fullest extent of our license
- **Work in Collaboration with the Patient's Primary Care Provider (PCP)**
- **Overseen by the Chief of the DM Program, and if accredited by an Advisory Board (ADCES)**
- **Part of a Interdisciplinary Team**

Specialization:

- **Trainings/ CEs**

- 15 hours of DM related education (ADCES)

- **Certifications (examples):**

- Pharmaceutical Care for Patients with Diabetes – by APhA*
- Diabetes Management – by ASHP*
- Pharmacy-Based Cardiovascular Disease Risk Management – by APhA*
- Tobacco Intervention Skills: Medical and Allied Health Professionals – by University of Arizona
- Pharmacy Based Immunization Delivery – by APhA*
- American Diabetes Care and Education Specialist (ADCES)

*American Pharmacists Association (APhA)

*American Society of Health-System Pharmacists (ASHP)

Specialization:

- **National Clinical Pharmacy Specialist (NCPS)**
 - Indian Health Services
 - Criteria met and hours achieved
- **Board Certified Pharmacotherapy Specialist (BCPS)**
 - Exam – by ASHP
- **Certified Diabetes Care and Education Specialists (CDCES)**
- **Board Certified Advanced Diabetes Management (BC-ADM)**

*American Society of Health-System Pharmacists (ASHP)

* American Diabetes Care and Education Specialist (ADCES)

Who Refers to the DM Program (examples):

- **Internal Medicine Clinic**
- **Family Medicine Clinic**
- **Urgent Care**
- **Emergency Department (ED)**
- **Pharmacy**
- **Pediatrics**
- **OB/GYN**
- **Self-referrals**

Medication Management:

- **Reconciliation:**

- Update their medication list
- Matches the medical record
- Over-the-counter, herbals, natural, street drugs, or another provider

- **Adherence:**

- How many times a week do they take their medications
- What side effects might they be experiencing
- Why did they stop taking it

Medication Management:

- **Cost Savings**
- **Titration:**
 - Increasing the medication to a higher dose
 - Decreasing the medication to a lower dose

Medication Management:

- **Rotations:**

- Switching to another medication in the same or different class
- Stopping medications
 - Not working based on lab results
 - Patient cannot tolerate
 - No longer useful in the treatment plan

Educators:

One-on-One:

- Appointments
 - In-person
 - Telephone visits
 - Video visits
- Walk-Ins

Group:

- Appointments
- In-Services to other departments

Self-Management Education:

- **SMART Goal Setting**

- Evidence-based medicine
- Motivational Interviewing
- Shared-decision making
- Patient's preferences
- Cultural Values
- Follow-up

S = Specific

M = Measurable

A = Achievable

R = Relevant

T = Time

Self-Management Education:

- Comprehensive education tailored to the patients' needs














Self-Management Education:


- Comprehensive education tailored to the patients' needs


ADCES7™


Diabetes Program PERSONAL GOALS
We ask our patients to chose which goal(s) they wish to focus on and/or have met at each visit.


		
1. Healthy 	OK	COULD BE BETTER
2. Monitoring 	OK	COULD BE BETTER
3. Being Active 	OK	COULD BE BETTER
4. Taking medicines 	OK	COULD BE BETTER
5. Problem Solving 	OK	COULD BE BETTER
6. Reducing Risks 	OK	COULD BE BETTER
7. Healthy Coping 	OK	COULD BE BETTER
8. Foot and Eye care 	OK	COULD BE BETTER


 HEALTHY EATING


 MONITORING

 TAKING MEDICATION

 BEING ACTIVE

 REDUCING RISKS

 HEALTHY COPING

 PROBLEM SOLVING

Looking at this list, "I want to improve" _____

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Self-Management Education:

- Comprehensive education tailored to the patients' needs



Manage Comorbidities (examples):

- **Obesity**
 - **Hypertension**
 - **Hyperlipidemia**
 - **Chronic Kidney Disease**
 - **Tobacco Cessation**
- **Follow the IHS algorithms**
 - Hypertension Therapy in Type 2 Diabetes
 - Type 2 Diabetes- Lipid and Aspirin Therapy
 - Type 2 Diabetes and Chronic Kidney Disease

<https://www.ihs.gov/diabetes/education-materials-and-resources/index.cfm?module=productList>

Comprehensive Medical History:

- **History of DM**
- **Labs**
- **Immunizations**
- **Screenings**
- **Yearly DM Exams**
 - Retinopathy
 - Foot
 - Dental

Referrals to other Specialties (examples):

- **Medical Nutrition Therapy (MNT)**
- **Urgent Care or Emergency Department**
- **Establish care with primary care provider**
- **Podiatry**
- **Dental**
- **Eye Clinic**
- **Behavioral Health**

Consultant:

- **Rest of the DM Program team**
- **In-patient, out-patient, urgent care, and emergency department staff**

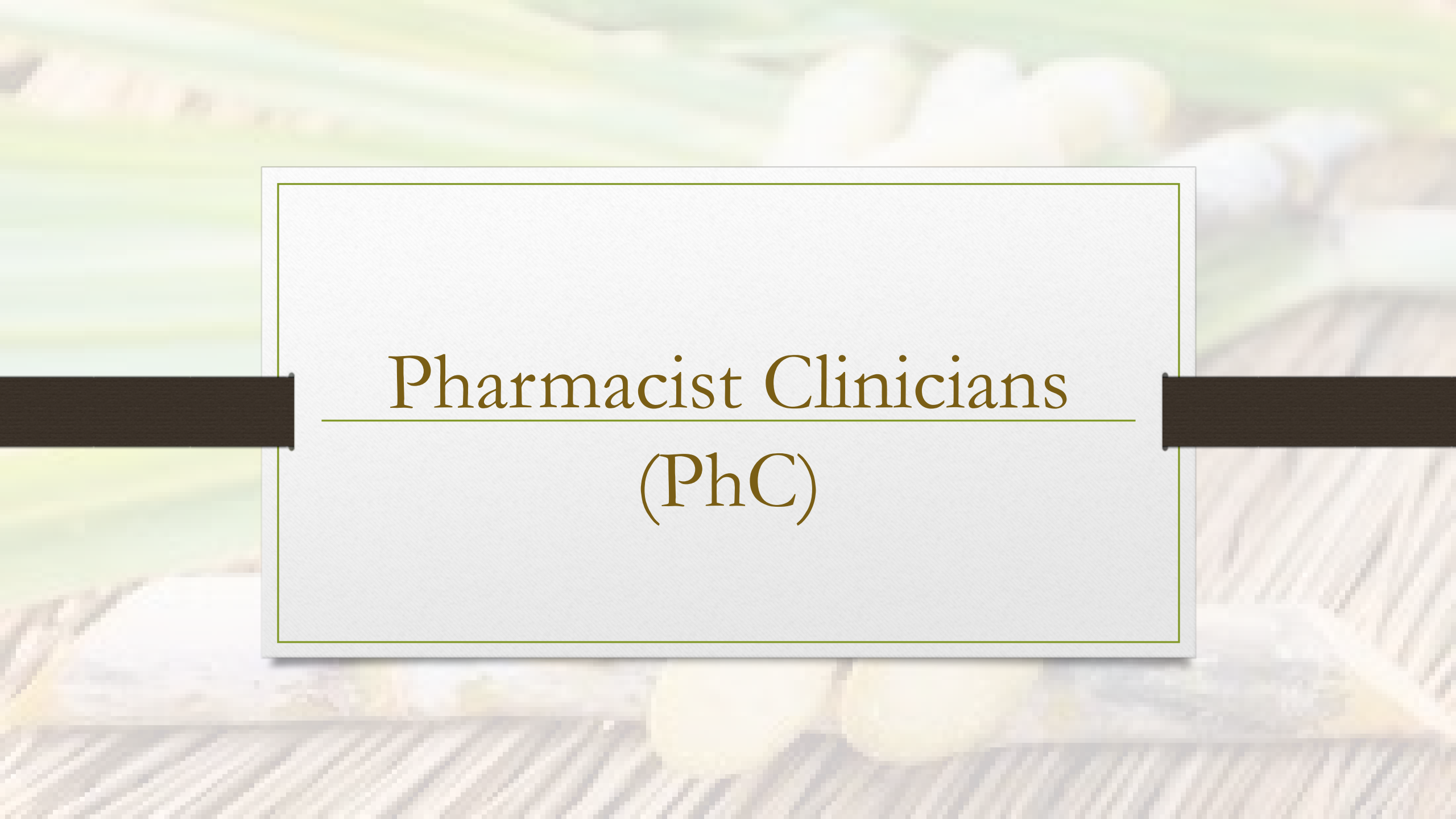
Outcomes (examples):

- **Improvement in clinical markers**
- **Improvement in Patient's Quality of Life**
- **Improvement in Patient's Knowledge of Diabetes**
- **Patient's Satisfaction**
- **Decrease in overall health care cost, hospitalizations, ED visits, and/or complications of diabetes**

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**“High blood pressure, high cholesterol,
high blood sugar, high anxiety...
getting high is no fun at my age!”**



Pharmacist Clinicians (PhC)

Enhanced Pharmacist Practice:

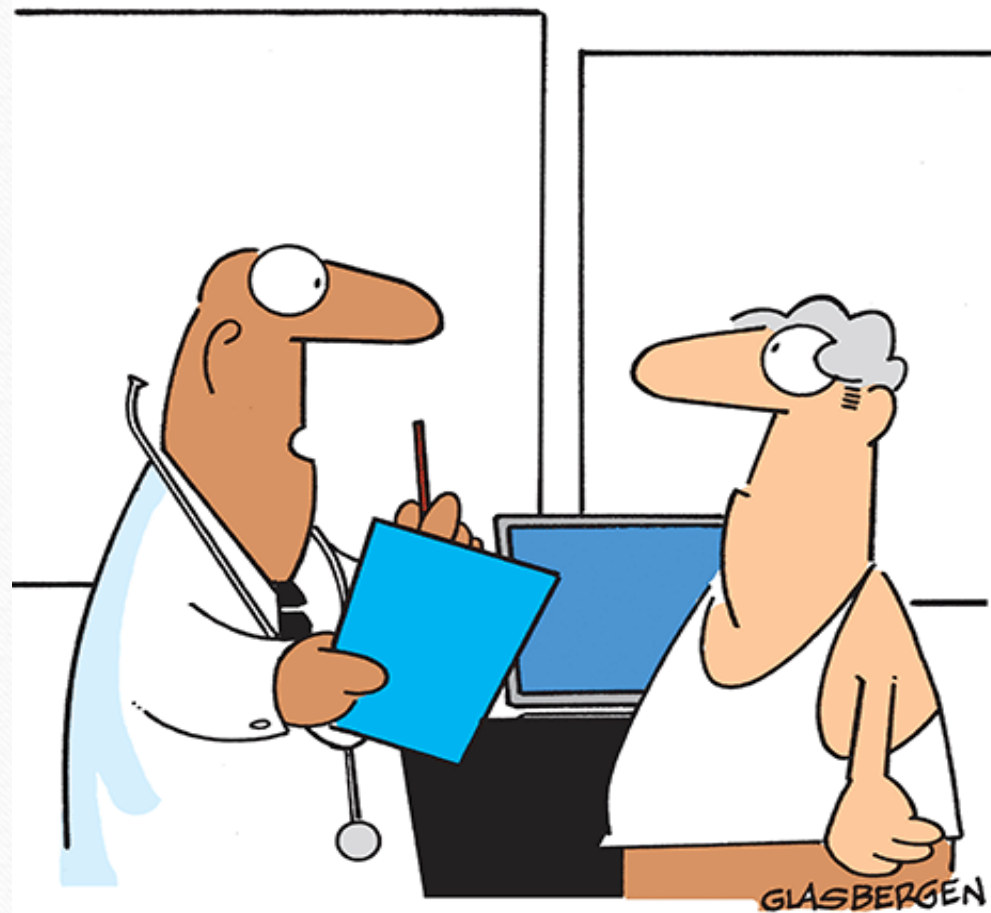
- “a pharmacist with additional training required by regulations adopted by the board in consultation with the New Mexico medical board and the New Mexico academy of physician assistants, who exercises prescriptive authority in accordance with guidelines or protocol.” [9]
- Conduct physical exams, prescribe medications, order labs, code/bill on their own license
 - Functions as a mid-level provider

Enhanced Pharmacist Practice:

Requirements [9 & 10]:

- Licensure in New Mexico
 - “Physical Assessment for Pharmacist Clinicians” course
 - **60 hours ACPE accredited course**
 - **Approved by the NM Board of Pharmacy**
 - Northern Navajo Medical Center (Shiprock)
 - New Mexico Pharmacists Association
 - Complete a 150-hour, 300-patient-contact preceptorship supervised by a physician or other practitioner with prescriptive authority
 - Protocol of collaborative practice
- <https://www.nmpharmacy.org/page-1722241>

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**“The handle on your recliner does not
qualify as an exercise machine.”**

Summary:

- **Get to know your pharmacists**
- **Know at what level they can provide information, and if they have specialized in DM care and education**
- **Utilize their skills and qualifications to enhance the interprofessional healthcare team and improve diabetes management**
- **Add a few pharmacists to your interdisciplinary healthcare team**
 - **Enlist and engage pharmacists to implement collaborative practice agreements**
 - **Leads to improved DM outcomes**

Post Test:

Q1. What are some skills clinical pharmacists and pharmacist clinicians are able to provide?

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Post Test:

Q2. What are the two main differences between a clinical pharmacist and a pharmacist clinician?

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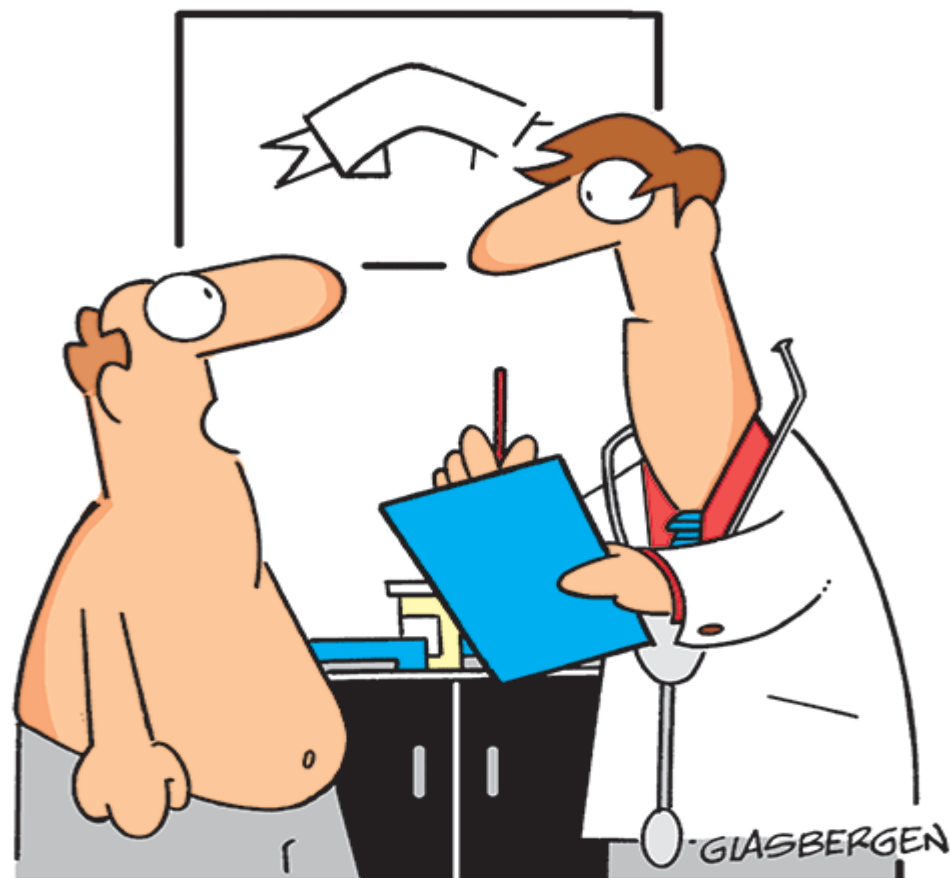
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Resources:

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**“Everyone knows food is bad for you,
but I don’t know what else to eat!”**

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Thank you,

From the bottom of my
pancreas!