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## Diabetic Care Pathway

Shalini Bansal

Thomas Jefferson University, shalini.bansal@students.jefferson.edu

Kayla Brockmeyer

Thomas Jefferson University, kayla.brockmeyer@students.jefferson.edu

Nick Kieran

Thomas Jefferson University, nicholas.kieran@jefferson.edu

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Jefferson Family Medicine Associates

# Diabetic Care Pathway

Shalini Bansal, Kayla Brockmeyer, Nick Kieran





# Presentation Outline

# The Impact of Diabetes

## Problem Statement

## Solution

## Looking to the Future

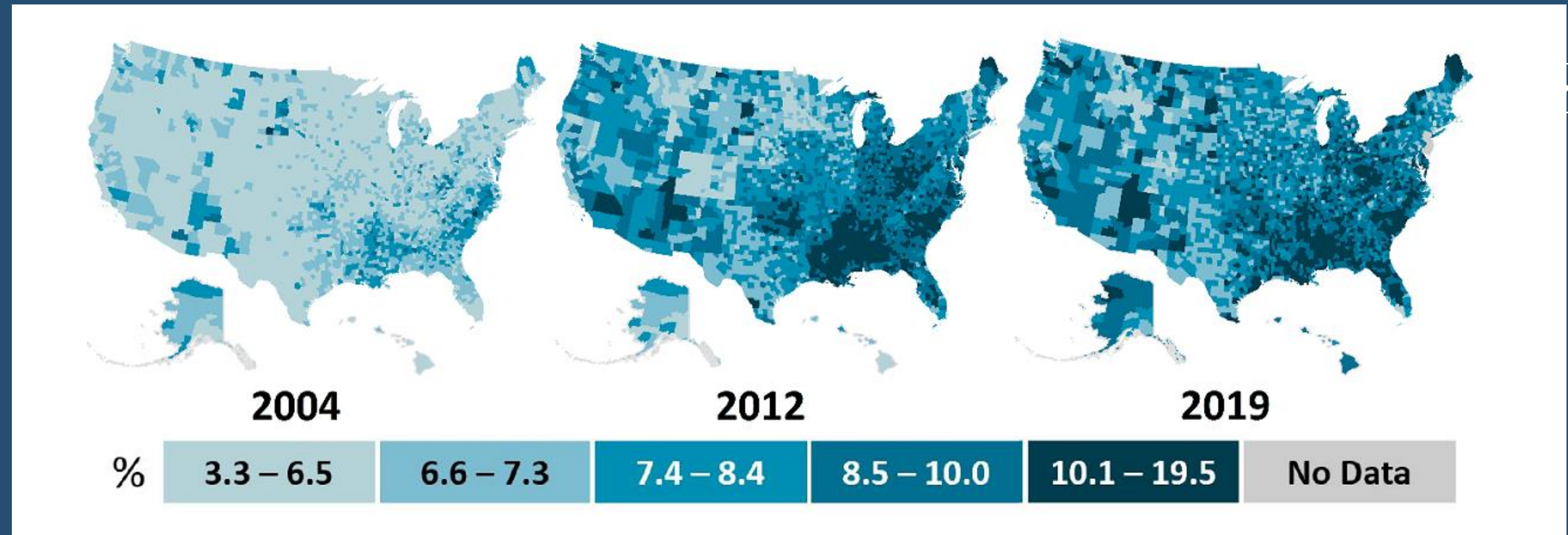


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# Background



# Prevalence of Type 2 Diabetes (T2DM)



# 34.2 million

People who have been diagnosed with diabetes in  
the United States as of 2020

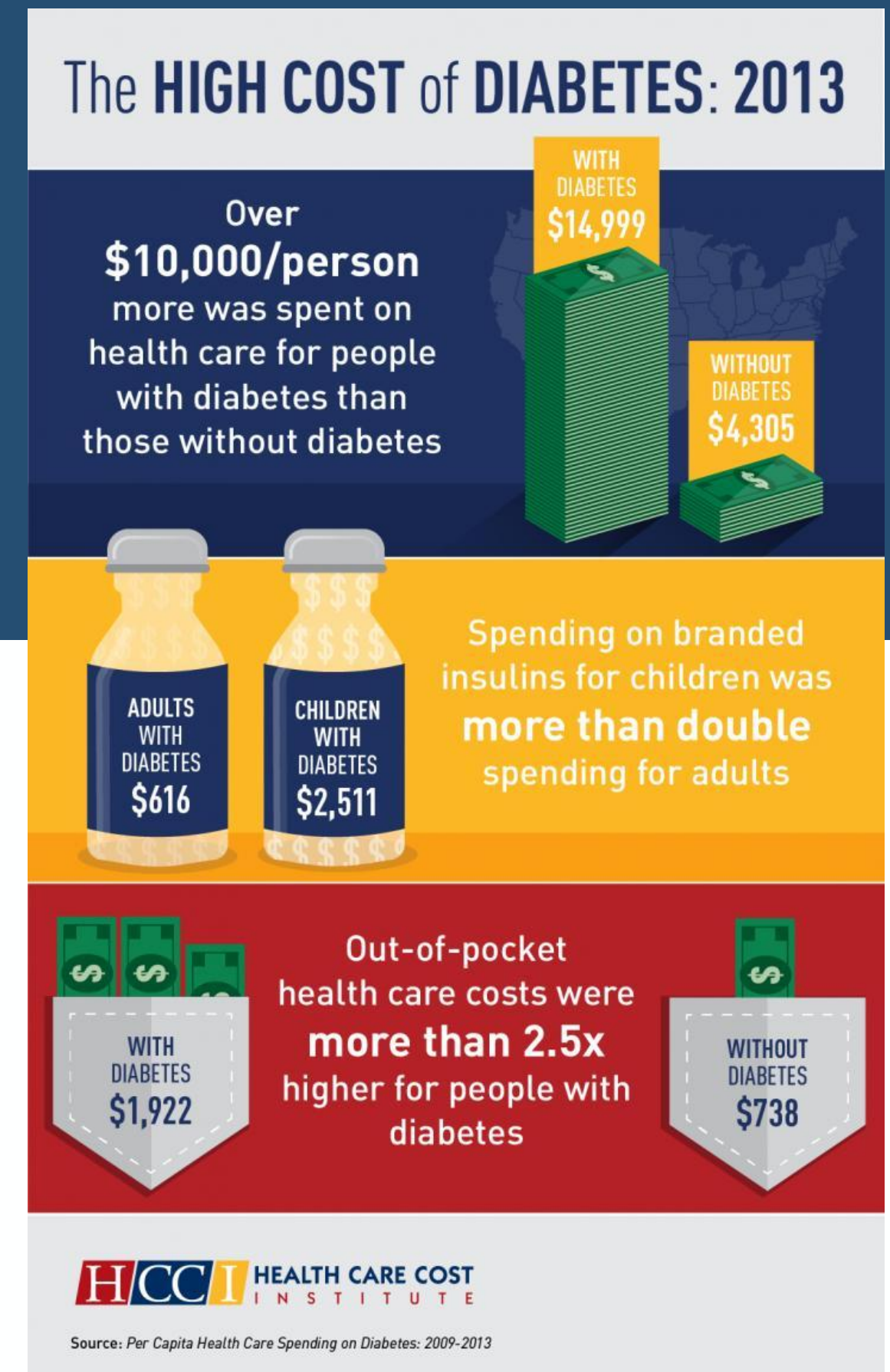
# T2DM Impact on the US per CDC

17 million ED visits with associated diabetes diagnosis in 2018

8.25 million hospitalization with associated diabetes diagnosis in 2018

\$237 billion Direct Medical Costs

\$90 billion Indirect Medical Costs





# T2DM

## Impact on the Individual

### Daily Concerns

- Blood Sugars, A1C
- Basal and Bolus Insulin
- Diet, Carb Counting
- Exercise
- Stress

### Longterm Concerns

- Hypertension
- Chronic Kidney Disease
- Diabetic Retinopathy
- Obesity
- Sleep Apnea
- Depression





# Problem



T2DM is hard to manage and growing in prevalence.

If left uncontrolled it has significant comorbidities impacting the individual, family, healthcare professionals, and overall healthcare system.

How do we manage T2DM while taking into account individual needs?



## CARRYING A GREAT WEIGHT

A chronic disease  
requires chronic  
commitment.

Jennifer Langley, EdD, ATC, Population Health  
Specialist



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# Creating the Diabetic Care Pathway

# Stakeholders



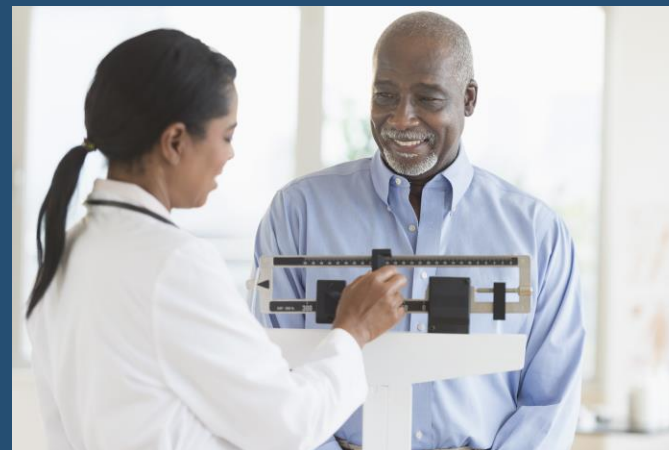
## 1. Jefferson Family Medicine Associates

- Physicians
- Registered Nurses
- Nutritionists
- Physical Therapists
- Social Workers
- Diabetic Educators
- Pharmacists



## 2. Patients

Patients enrolled in this pathway will have the benefit of a structured care plan with the hope of better controlling their diabetes. Improving their diabetes has long-term implications on preventing diabetes-related complications and improving their quality of life.



## 3. Jefferson Hospital Network

By managing diabetes in these patients with a preventative and proactive approach, we can effectively reduce ED visits and emergent complications, which pose a much larger strain on hospital resources and money compared to the implementation of this pathway.





# Resources Utilized To Create The Pathway



## Pathways Implemented In Other Hospitals for Other Chronic Illnesses

We researched other pathways for diabetes as well as chronic heart conditions, cancer, etc. to leverage what has been done before and understand how our pathway could be tailored to our diabetic patients.

## Pathways Previously Implemented at JFMA

*Diabetes Information and Support for Your Health (DISH):* A previous pathway utilized at JFMA. In this program, patients would come in weekly to meet with other patients struggling to manage their diabetes.

- Pros: Patients in the program had been able to improve their control of their diabetes and enjoyed the social component of the program
- Cons: There were no milestones or markers for patients to graduate out of the program, which limited JFMA from enrolling new patients and understanding the bandwidth of the program.

## Our Medical Knowledge

We used the knowledge gained in medical school to ensure that we implemented all areas of potential concern for our patients.

## Patient Feedback

We gathered feedback on previous pathways and what each patient would like to see in the new pathway.



# Purpose of the Diabetic Care Pathway

- Create a standardized process for personalized care
- Create clear program metrics and milestones
- Take a multidisciplinary approach
- Utilize shared decision making
- Educate and support
- Incite a forward trajectory

# Diabetic Care Pathway Outcome Measures



## 1. Better controlled diabetes

Decreased A1C

Decreased BMI

Improved patient education (when to measure glucose levels, when and how to administer insulin)

## 2. Better controlled comorbidities

Improved blood pressure

Reduction in diabetes-related infections

Management of CKD, diabetic neuropathy and diabetic retinopathy

Increased awareness of how to monitor comorbidities

## 3. Better quality of life

Increased autonomy in daily life

Improved mental health and mood

Increased ability to participate in activities (hobbies, errands, etc.)



# Diabetic Care Pathway Timeline



## Identify the population that will benefit most

- Uncontrolled diabetes
- Numerous comorbidities
- Difficulty controlling A1C and BMI

## Strategize with the patient's care team

- Doctors
- Nurses
- Nutritionists
- Psychiatrists
- Social workers

## Measure outcomes

- 3 month-course
- Measurements during and post-study

# What has been done so far?

Performed patient  
identification, outreach,  
and scheduling

Created survey questions for  
patients to better understand  
their needs

Coordinated with other  
members of the care team

Determined outcome  
measures

# Interdisciplinary Survey

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List of specialists involved in care:

Physicians, RNs, pharmacists/pharmacologists, diabetic educators + nutritionists, social workers, behavioral health consultants



# Interdisciplinary Survey

## Initial Information Needed / Resources for DM Pathway Participants

List of specialists involved in care:

Physicians, RNs, pharmacists/pharmacologists, diabetic educators + nutritionists, social workers, behavioral health consultants

- We have tried to highlight the questions that are most applicable to some of the above specialists using different colors. The role of each specialist may differ from what we have anticipated, so it may be best to briefly check each section to be sure that the questions are best handled by a different specialty. We have not highlighted specific questions for physicians or RNs, as there was overlap in every section.
- Any recommendations for questions to either add or remove is very appreciated, thank you all!

### I. Demographic Information

- Preferred name
- Age
- Race, Ethnicity
- Preferred Language
- Gender Identity
  - Sex assigned at birth
- Zip code
- Work

### II. Diabetic History

- When were you initially diagnosed with diabetes?
- What, if any, oral medications have you used?
- What, if any, insulins have you used?
- What is your current treatment regimen? - include basal, bolus
- Do you have a family history of diabetes?
- Have you done any of the following to save money:
  - Not taken/picked up medication
  - Avoided going to the doctor
  - Eaten a meal that you knew was unhealthy but was cheap

### III. Comorbidities

- Please list any long-term chronic health issues you have going on, and which medications (names, doses, frequency) you are on for those health conditions.

### IV. Nutrition

- How many times do you eat each day?
- What do you typically eat for breakfast, lunch, and dinner?
- What kind of effect do you think your diet has on your diabetes?
- Can you explain your meal plan?
- What do you like/don't like about your meal plan?
- How well is your meal plan working for you?
- Which foods and beverages do you try to avoid?

H. Which foods and beverages do you think you should try to avoid

I. How can I help ensure that your meal plan reflects your cultural background?

### V. Activity

- On a scale of 1 to 10, how fit would you describe yourself?
- Do you feel you have the time and resources for exercising?
- If you do exercise, what types of exercise do you do every day or week?
- How many days per week do you exercise (walk, run, use weights, etc) for at least 30 minutes?
- Can you describe your exercise program for me?
- How well do you think your exercise program is working?
- Are there things that get you off track?
- Do you have any specific problems with your exercise program or any issues of concern?
- What are your exercise goals within the next 3 months?

### VI. Monitoring Blood Glucose

- What kind of equipment and supplies do you have to self-check your blood sugar?
- How often has your doctor/healthcare provider instructed you to check your blood sugar? Are you able to check your blood glucose as often as recommended?
- What helps you remember to check it and what gets you off track?
- Do you keep a blood sugar log book?
  - If so, do you bring your log book to your doctor visits?
- How well do you think you are controlling your blood sugar?
- What goals do you have for your blood sugar over the next 3 months?

### VII. Awareness of related issues

- Can you tell me the potential long-term complications of diabetes?
- How often do you have your A1C, blood pressure, and cholesterol checked?
  - What were the latest results?
- What tests and examinations should you have done each year (eg, foot, eye, dental exams, etc.)?
- Which tests and examinations have you done this year?
- Do you need help scheduling these tests/exams?
- Have you had your glucose monitor checked to see if it's working correctly?
- How often do you check your blood sugar?
- What difficulties are you having with any aspect of your care plan?

### VIII. Quality of Life

- On a scale of 1-10, how well do you feel you have control over your diabetes, 1 being no control and 10 being total control
- On a scale of 1-10, how strongly do you feel diabetes has negatively impacted your life, 1 being no negative impact, 10 being significant negative impact
- On a scale of 1-10 how healthy would you rate your diet, 1 being not healthy at all, 10 being very healthy
- On a scale of 1-10, how would you rate your activity / exercise level, 1 being no exercise and 10 being a lot of exercise

E. On a scale of 1-10, how would you rate your overall health, 1 being very unhealthy and 10 being very healthy

F. On a scale of 1-10, how would you rate your happiness, 1 being very unhappy and 10 being very happy

### IX. Healthy coping

- How are you coping with diabetes?
- Do you believe that, with the right support from your care team, you can help yourself succeed?
- How are you coping with lifestyle changes, such as eating healthier and exercising?
  - What have you had success with? What have you struggled with?
- How does having diabetes make you feel?
- Do you think you're doing a good job managing your diabetes?
  - Why do or don't you feel that way?
- How helpful is the support from your care team?

### X. How many times in the past 3 months have you had the following symptoms:

- Dizziness or shakiness
- Nervousness
- Unexpected rapid heartbeat
- Trouble concentrating
- Headache
- Irritability, moodiness, or anger
- Sweating
- Tingling in the face or lips
- Extreme hunger

## Additional Information for patients:

<https://www.aafp.org/afp/topicModules/viewTopicModule.htm?topicModuleId=7#6> -- this source from the American Association of Family Physicians includes information on important patient education regarding "Nerve pain in diabetes", "Preventing diabetic foot infections", "Gestational diabetes and nutrition", "Lifestyle changes to manage type 2 diabetes", and "Gastroparesis: What you should know".

- Some of these resources may be helpful to select patients and can be included in resources with which they can become familiar.

## References:

<https://www.carepathhealthyengagements.com/sites/carepathhealthyengagements.com/files/T2-D-case-manager-interview-guide.pdf> -- this question list form the American Association of Diabetes Educators were the source of many of the question above.

# Interdisciplinary Survey Topics

Previously diagnosed comorbidities

Medications

Nutritional status

Activity levels

Ability to monitor blood glucose

Quality of life

Healthy coping strategies

List of specialists involved in care:

Physicians, RNs, pharmacists/pharmacologists, diabetic educators + nutritionists, social workers, behavioral health consultants



# What will be done in the future?

- Carrying out the project
- Extension for patients who are interested
- Determining program's success
- Supplement personalized care with group therapy





# Special thank you to:

- Jennifer Langley
- Wydera Stubbs
- JFMA Physicians, Nurses, Pharmacists, Physical Therapists, Nutritionists, and Social Workers
- PEL Committee and Guest Speakers
- Our Patients!



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# Questions?