

# MTFC Scenario Quest Response 2024-25

Team Name	
Team ID #	

## MTFC Scenario Quest Template Use Notes:

- Refer to the official MTFC Scenario Quest 2024-25 for the 25 prompts and scoring instructions.
- The use of this template is OPTIONAL.
  - It is provided as an optional resource for teams to keep their Scenario Quest response organized. Teams who wish to use this template should make a copy in order to edit.
- The final version of the team's MTFC Scenario Quest Response should be downloaded as a PDF or Word document to submit on the ICS Dashboard. A single file will be submitted.
- Additional resources (including the Actuarial Process Guide) can be found on the Modeling the Future Challenge website: <https://www.mtfchallenge.org/resources/>
- Please direct any questions to [challenge@mtfchallenge.org](mailto:challenge@mtfchallenge.org).

## Part 1: Project Definition (*Diabetes Topic Prompts*)

These prompts can be found on page 5 of the 2024-25 Scenario Quest. Additional information on Project Definition can be found in **Step 1: Project Definition** in the Actuarial Process Guide.

Team Responses:

### #1: Who is at risk?

- Response:

### #2: Defining the risks

- Response:

### #3: Identify Risk mitigation strategies

- Response:

## Part 2: Data Identification & Assessment (*Diabetes Topic Prompts*)

These prompts can be found on page 6 of the 2024-25 Scenario Quest. Additional information on Data Identification and Assessment can be found in **Step 2: Data Identification & Assessment** in the Actuarial Process Guide.

Team Responses:

### **#4: Identifying the type of data**

- Response:

### **#5: Insuracare Reserves**

- Response:

### **#6: Diabetic policyholder total claim average & standard deviation**

- Response:

### **#7: Average pharmacy claims costs**

- Response:

### **#8: Frequency of pharmacy claims**

- Response:

### **#9: Creation of a data visualization**

- Response:

## Part 3: Mathematical Modeling (*Diabetes Topic Prompts*)

These prompts can be found on page 7 of the 2024-25 Scenario Quest. Additional information on Mathematical Modeling can be found in **Step 3: Mathematical Modeling** in the Actuarial Process Guide.

Team Responses:

### #10: Linear regression

- Response:

### #11: Compare projections

- Response:

### #12: Expected value

- Response:

### #13: Assumption evaluation

- Response:

### #14: Assumption evaluation

- Response:

### #15: Assumption evaluation

- Response:

### #16: Assumption evaluation

- Response:

## Part 4: Risk Analysis (*Diabetes Topic Prompts*)

These prompts can be found on page 8 of the 2024-25 Scenario Quest. Additional information on conducting a Risk Analysis can be found in **Step 4: Risk Analysis** in the Actuarial Process Guide.

Team Responses:

### #17 Characterizing risk

- Response:

### #18: Projecting expected value to 2030

- Response:

### #19: Current trajectory

- Response:

### #20: Considering pharmacy claim reasons

- Response:

### #21: Assessing incentivization strategy

- Response:

## Part 5: Recommendations (*Diabetes Topic Prompts*)

These prompts can be found on page 9 of the 2024-25 Scenario Quest. Additional information on making Recommendations can be found in **Step 5: Recommendations** in the Actuarial Process Guide.

Team Responses:

### #22: Cost of the mitigation strategy

- Response:

### #23: Expected value of loss with the mitigation strategy

- Response:

### #24: Difference between mitigation and current trajectory

- Response:

### #25: Evaluating if the strategy should be recommended

- Response: