Appendix A.

Personal Experience With Diabetes

- 1. Have you ever been diagnosed with type 1 diabetes (T1D)?
 - a. Yes
 - i. Conditional -- If yes:
 - 1. Have you ever used a continuous glucose monitor, such as the Dexcom, Freestyle Libre, Senseonics Eversense, or Medtronic Guardian?
 - a. Yes
 - b. No
 - c. Unsure
 - 2. Have you ever used an insulin pump?
 - a. Yes
 - b. No
 - c. Unsure
- 2. Have you ever been diagnosed with type 2 diabetes (T2D)?
 - a. Yes
 - i. Conditional -- If yes:
 - 1. Have you ever used a continuous glucose monitor, such as the Dexcom, Freestyle Libre, Senseonics Eversense, or Medtronic Guardian?
 - a. Yes
 - b. No
 - c. Unsure
 - 2. Have you ever used an insulin pump?
 - a. Yes
 - b. No
 - c. Unsure
- 3. Have you ever been diagnosed with gestational diabetes (GD)?
 - a. Yes
 - i. Conditional -- If yes:
 - 1. Have you ever used a continuous glucose monitor, such as the Dexcom, Freestyle Libre, Senseonics Eversense, or Medtronic Guardian?
 - a. Yes
 - b. No
 - c. Unsure
 - 2. Have you ever used an insulin pump?
 - a. Yes
 - b. No
 - c. Unsure
- 4. Have any of your family or close friends used a continuous glucose monitor, such as the Dexcom, Freestyle Libre, Senseonics Eversense, or Medtronic Guardian?
 - a. Yes
 - b. No
 - c. Unsure
- 5. Have any of your family or close friends used an insulin pump?
 - a. Yes
 - b. No
 - c. Unsure

Advanced Artificial Pancreas Technology

- 6. Are you familiar with emerging closed-loop insulin pump ("artificial pancreas") technology?

 - a. Yes
 - b. No
 - c. Unsure

Please consider a hypothetical new diabetes management system:

After entering only the patient's weight, it automatically adjusts insulin delivery to keep blood sugars at a pre-defined target level. It reduces both hypoglycemia and hyperglycemia, achieving a hemoglobin A1c of approximately 6.8%.

- 7. I feel that there are advantages to patients being able to get such a system through their
 - primary care provider.
 - a. Strongly disagree
 - b. Disagree
 - c. Agree
 - d. Strongly agree
- 8. I would consider ordering/prescribing such a system for my patients with T1D.
 - a. If "Yes" move to next question
 - b. If "No"
 - i. If the manufacturer provided patient/parent training on device use, would you consider prescribing this to patients yourself?
 - 1. Yes
 - 2. No
- 9. I would consider ordering/prescribing such a system for my patients with T2D.
 - a. If "Yes" move to next question
 - b. If "No"
 - ii. If the manufacturer provided patient/parent training on device use, would you consider prescribing this to patients yourself?
 - 1. Yes
 - 2. No
- 10. I would consider ordering/prescribing such a system for my patients with GD.
 - a. If "Yes" move to next question
 - b. If "No"
 - iii. If the manufacturer provided patient/parent training on device use, would you consider prescribing this to patients yourself?
 - 1. Yes
 - 2. No
- 11. I feel that ordering/prescribing such a system would require consultation with an endocrinologist.
 - a. Yes
 - iv. Conditional: If yes please elaborate
 - b. No
- 12. Do you see any potential challenges with emerging closed-loop insulin pump ("artificial pancreas") technology being prescribed by primary care providers?
 - a. Yes
 - v. Conditional: If yes please elaborate
 - b. No
- 13. Do you see any benefits to being able to prescribe emerging closed-loop insulin pump ("artificial pancreas") technology over a specialist?
 - a. Yes
 - vi. Conditional: If yes please elaborate
 - b. No
 - a. Conditional: If no please elaborate

Patient Population

14. Please estimate how many patients in your continuity panel have T1D

- a. 0
- b. 1-5
- c. 6-10
- d. 11-15
- e. 16-20
- f. 21-25
- g. Greater than 25
- 15. Please estimate how many patients with T1D you provide primary DIABETES care for.
 - a. 0
 - b. 1-5
 - c. 6-10
 - d. 11-15
 - e. 16-20
 - f. 21-25
 - g. Greater than 25
- 16. Please estimate how many patients in your continuity panel have T2D.
 - a. 0
 - b. 1-10
 - c. 11-25
 - d. 25-50
 - e. >50
- 17. Please estimate how many patients with T2D you provide primary DIABETES care for.
 - a. 0
 - b. 1-10
 - c. 11-25

 - d. 25-50

e. >5018. What percentage of your patients with T2D take insulin?

- a. 0%
- a. 070 b. 1-10%
- c. 11-20%
- c. 11-20%
- d. 21-30%
- e. 31-40%
- f. 41-50%
- g. >50%

19. Please estimate how many patients in your continuity panel have GD.

- a. 0
- b. 1-5
- c. 6-10d. 11-15
- a. 11-13e. 16-20
- f. 21-25
- g. >25

20. Please estimate how many patients with GD you provide primary DIABETES care for.

- a. 0
- b. 1-5
- c. 6-10
- d. 11-15
- e. 16-20
- f. 21-25 g. >25

21. What percentage of your patients with GD take insulin?

- a. 0%
- b. 1-10%
- c. 11-20%
- d. 21-30%
- e. 31-40%
- f. 41-50%
- g. >50%
- h. N/A (I do not have patients with GD)
- 22. Does a Certified Diabetes Educator (CDE) see patients at your practice site?
 - a. Yes
 - b. No
 - c. Unsure
- 23. Does a Registered Dietician (RD) see patients at your practice site?
 - a. Yes
 - b. No
 - c. Unsure
- 24. How familiar are you with continuous glucose monitoring (CGM) systems, such as the Dexcom G6, Freestyle Libre, and Senseonics Eversense?
 - a. Very familiar
 - b. Somewhat familiar
 - c. Somewhat unfamiliar
 - d. Very unfamiliar
- 25. Do you have any patients with diabetes using continuous glucose monitoring (CGM) systems?
 - a. Yes
 - b. No
 - c. Unsure
- 26. Does your practice perform CGM training on site?
 - a. Yes
 - b. No
 - c. Unsure
- 27. Which of the following insulin delivery methods are used among your patients with diabetes? (Please select all that apply)
 - a. Syringes/insulin vials
 - b. Insulin pens
 - c. Insulin pumps
 - d. Inhaled insulin
 - e. N/A (I do not have any patients that take insulin)
- 28. How comfortable are you <u>initiating</u> insulin for T2D via **injections** (insulin pens or insulin syringes)?
 - a. Very comfortable
 - b. Somewhat comfortable
 - c. Somewhat uncomfortable
 - d. Very uncomfortable

29. How comfortable are you adjusting insulin for T2D via injections (insulin pens or insulin

syringes)?

- a. Very comfortable
- b. Somewhat comfortable
- c. Somewhat uncomfortable
- d. Very uncomfortable

30. How comfortable are you *initiating* insulin for T2D via **insulin pumps**?

- a. Very comfortable
- b. Somewhat comfortable
- c. Somewhat uncomfortable
- d. Very uncomfortable

31. How comfortable are you <u>adjusting</u> insulin for T2D via insulin pumps?

- a. Very comfortable
- b. Somewhat comfortable
- c. Somewhat uncomfortable
- d. Very uncomfortable

END OF STUDY INSTRUMENT

SUPPLEMENTAL SURVEY SECTION

Provider Demographics

- 32. What is your age? _____(years)
- 33. What is your gender?
 - a. Male
 - b. Female
 - c. Other: _
 - d. Prefer not to answer
- 34. What is your position?
 - a. Attending Physician
 - b. Resident Physician
 - c. Nurse Practitioner
 - d. Physician Assistant
 - e. Other:
- 35. How long have you been practicing (after completion of training)?
 - a. I am still in training
 - b. 0-5 years
 - c. 5-10 years
 - d. 10-15 years
 - e. 15-20 years
 - f. >20 years
- 36. Please enter the location of your practice:
 - a. City:
 - b. State:
- 37. What is the setting of your practice?
 - a. Urban
 - b. City suburb
 - c. Town
 - d. Rural
- 38. Is your practice (Please select all that apply):
 - a. Solo
 - b. Partner
 - c. Single specialty
 - d. Multispecialty
 - e. Hospital-based
 - f. Community-based
 - g. Academic
 - h. Other:
- 39. What type of facility do you primarily practice in?
 - a. Inpatient
 - b. Outpatient
 - c. Both