

1. Please mark your response to the following statements				
1 = strongly disagree, 5 = strongly agree				
	n=	Overall %	MDI %	Pump %
a. I feel healthy				
1	28	1.8	1.8	1.8
2	87	5.6	7.4	5
3	287	18.6	19.5	18.3
4	683	44.3	42.1	45.1
5	455	29.5	29.2	29.6
Decline to answer	2	0.1	0	0.2
b. I can do anything I set out to				
1	28	1.8	1.5	1.9
2	72	4.7	4.9	4.6
3	233	15.1	14.9	15.2
4	607	39.4	42.1	38.5
5	598	38.8	36.7	39.5
Decline to answer	4	0.3	0	0.3
c. Taking care of my diabetes is among my top priorities				
1	21	1.4	1.5	1.3
2	33	2.1	2.6	2
3	105	6.8	7.9	6.4
4	436	28.3	25.4	29.3
5	931	60.4	61.3	60.1
Decline to answer	16	1	1.3	1
d. I feel confident in managing my diabetes				
1	24	1.6	1.8	1.5
2	64	4.2	5.4	3.7
3	202	13.1	16.4	12
4	654	42.4	41	42.9
5	590	38.3	34.9	39.4
Decline to answer	8	0.5	0.5	0.5
e. I have the tools to manage my diabetes				
1	32	2.1	2.8	1.8
2	61	4	5.9	3.3
3	211	13.7	15.6	13
4	612	39.7	41	39.2
5	618	40.1	34.1	42.1
Decline to answer	8	0.5	0.5	0.5

2. On a scale from 1-5, how confident are you in:				
1 = not confident, 5 = very confident				
a. Controlling your glucose				
1	21	1.4	2.1	1.1
2	88	5.7	6.2	5.6
3	398	25.8	27.9	25.1
4	767	49.7	46.4	50.9
5	267	17.3	17.4	17.3
Decline to answer	1	0.1	0	0.1
b. Calculating insulin doses				
1	9	0.6	0.5	0.6
2	51	3.3	5.1	2.7
3	231	15	16.7	14.4
4	677	43.9	45.9	43.2
5	571	37	31.3	39
Decline to answer	3	0.2	0.5	0.1
c. Counting carbs				
1	26	1.7	2.1	1.6
2	94	6.1	8.5	5.3
3	309	20	22.8	19.1
4	641	41.6	37.7	42.9
5	463	30	28.5	30.6
Decline to answer	9	0.6	0.5	0.6
d. Avoiding hypoglycemia				
1	25	1.6	1.5	1.6
2	139	9	8.5	9.2
3	497	32.2	32.1	32.3
4	669	43.4	43.3	43.4
5	212	13.7	14.6	13.5
Decline to answer	0	-	-	-
e. Managing glucose during and after exercise				
1	83	5.4	4.6	5.6
2	218	14.1	10.8	15.3
3	511	33.1	30.8	33.9
4	551	35.7	39.2	34.5
5	167	10.8	13.6	9.9
Decline to answer	12	0.8	1	0.7
3. Do you have regular access to smart phones, computers and/or tablets?				
1 = no access, 5 = a lot of access				

1	10	0.6	0.5	0.7
2	3	0.2	0.3	0.2
3	7	0.5	1	0.3
4	72	4.7	5.4	4.4
5	1446	93.8	92.6	94.2
Decline to answer	4	0.3	0.3	0.3
4. Select all the phone technologies that you currently use				
Landline	468	30.4	27.9	31.2
Cellular phone/Flip phone (little to no internet capability)	87	5.6	6.4	5.4
Smartphone + touch screen (internet connection)	1496	97	94.9	97.7
5. How interested are you in using or acquiring a smartphone app to help you manage your diabetes?				
1 = not interested, 5 = very interested				
1	68	4.5	6.2	3.9
2	51	3.3	1.8	3.9
3	174	11.4	12.9	10.9
4	251	16.5	18.1	15.9
5	948	62.2	59.7	63
Decline to answer	33	2.2	1.3	2.5
6. How often do you have your phone with you?				
0% = never 100% = all the time				
0%	5	0.3	0.8	0.2
1-25%	13	0.8	1.3	0.7
25-50%	27	1.8	2.1	1.6
50-75%	161	10.4	9.5	10.8
75-100%	1336	86.6	86.4	86.7
Decline to answer	0	0	-	-
7. How often do you wear a fitness monitor (i.e. Fitbit, Apple Watch, or Garmin)?				
0% = never, 100% = all the time				
0%	802	52	61.5	48.8
1-25%	88	5.7	7.4	5.1
25-50%	57	3.7	3.1	3.9
50-75%	118	7.7	6.7	8
75-100%	474	30.7	21.3	33.9
Decline to Answer	3	0.2	0	0.3
8. On average, how often do/have you use(d) a phone application to manage your diabetes?				

Every couple of days or less	810	52.5	54.4	51.9
1-2x per day	71	4.6	3.3	5
3-4x per day	88	5.7	7.2	5.2
5-6x per day	67	4.3	5.1	4.1
>6x per day	421	27.3	23.8	28.5
Decline to Answer	85	5.5	6.2	5.3
9. Have you ever used a phone application to calculate your insulin dose?				
Yes - I currently use a phone application to calculate my insulin dose	112	7.3	12.3	5.6
Yes - I used a phone application in the past to calculate my insulin dose but stopped using it	132	8.6	7.7	8.9
No - I have never used a phone application to calculate my insulin dose	1298	84.2	80	85.6
10. How often do you use a meter (such as Accu-check Expert Meter) to calculate your insulin doses?				
0% = never, 75-100% = almost all the time				
0%	682	44.2	44.1	44.3
1-25%	156	10.1	10	10.2
25-50%	92	6	6.4	5.8
50-75%	154	10	9.7	10.1
75-100%	446	28.9	29	28.9
Decline to Answer	12	0.8	0.8	0.8
11. On average, how often do you take a finger stick to test your glucose?				
Every couple of days or less	54	3.5	6.2	2.6
1-2x per day	374	24.3	25.4	23.9
3-4x per day	467	30.3	26.7	31.5
5-6x per day	337	21.9	21	22.1
7-8x per day	173	11.2	11	11.3
9-10x per day	78	5.1	4.6	5.2
>10x per day	57	3.7	4.9	3.3
Decline to Answer	2	0.1	0.3	0.1
12. How often do you wear a CGM? (Section for CGM users only)				
0% = never, 100% = all the time				
0%	1	0.1	0.5	0
1-25%	12	1	0.5	1.1
25-50%	24	2.1	2.1	2.1
50-75%	79	6.8	7.3	6.7
75-100%	1047	90	89.5	90.1
Decline to answer	0	-	-	-

13. How often do you look at your CGM throughout the day?				
Rarely	4	0.3	0.5	0.3
1-3x per day	20	1.7	1	1.9
4-6x per day	96	8.3	7.3	8.4
>6x per day	1043	89.7	91.1	89.4
Decline to Answer	0	-	-	-
14. On average, how often do you review your extended CGM glucose history on your phone or using a tool such as Dexcom Clarity?				
I am not aware of these tools	133	11.4	7.3	12.2
I am aware of these tools but have never used them	217	18.7	13.6	19.7
1 time per month	325	27.9	28.8	27.8
1 time per week	239	20.6	24.1	19.9
Multiple times per week	136	11.7	12	11.6
Daily	101	8.7	12.6	7.9
Decline to answer	12	1	1.6	0.9
15. How often do you use a CGM device used to perform the following actions?				
1 = never, 5 = very often				
a. Check if you have high or low glucose				
Never, 1	5	0.4	0.5	0.4
2	35	3	1.6	3.3
3	95	8.2	9.9	7.8
4	1028	88.4	88	88.5
5	0	-	-	-
Decline to answer	0	-	-	-
b. Check your glucose before eating				
Never, 1	9	0.8	0	0.9
2	13	1.1	1	1.1
3	45	3.9	3.1	4
4	110	9.5	6.3	10.1
5	985	84.7	89.5	83.7
Decline to answer	1	0.1	0	0.1
c. Check your glucose before exercising				
Never, 1	14	1.2	1	1.2
2	26	2.2	2.1	2.3
3	51	4.4	4.7	4.3
4	109	9.4	8.9	9.5
5	954	82	82.7	81.9

Decline to answer	9	0.8	0.5	0.8
d. Check your glucose before bedtime				
Never, 1	9	0.8	0	0.9
2	14	1.2	0.5	1.3
3	48	4.1	3.1	4.3
4	96	8.3	8.4	8.2
5	996	85.6	88	85.2
Decline to answer	0	-	-	-
e. Look at trend arrows				
Never, 1	4	0.3	0.5	0.3
2	12	1	0	1.2
3	60	5.2	3.1	5.6
4	128	11	12.6	10.7
5	958	82.4	83.8	82.1
Decline to answer	1	0.1	0	0.1
f. Modify insulin dosing				
Never, 1	20	1.7	1	1.9
2	32	2.8	1	3.1
3	99	8.5	6.3	9
4	193	16.6	18.3	16.3
5	818	70.3	73.3	69.8
Decline to answer	1	0.1	0	0.1
16. How often do you make changes to your long-acting insulin (i.e. Lantus)?				
Daily	51	3.3	8.5	1.6
Weekly	79	5.1	9.7	3.6
Monthly	135	8.8	16.2	6.2
Every three months (i.e. after a doctor's visit/after my A1C)	449	29.1	58.5	19.2
Decline to answer	828	53.7	7.2	69.4
17. How often do you make changes to your short-acting (Novolog, Humalog, or Apidra) insulin ratios (such as carb ratios or factors)?				
I don't use ratios to calculate my insulin dose	66	4.3	8.2	3
Daily	361	23.4	44.9	16.1
Weekly	117	7.6	5.1	8.4
Monthly	263	17.1	8.7	19.9
Every 3 months Every three months (i.e. after a doctor's visit/after my A1C)	680	44.1	29.5	49
Decline to answer	55	3.6	3.6	3.6
18. How soon would you want to know about a predicted hypoglycemic event?				

Never	3	0.2	0.3	0.2
5 mins prior	111	7.2	9	6.6
15 mins prior	543	35.2	37.7	34.4
30 mins prior	663	43	37.7	44.8
>1 hour prior	219	14.2	15.1	13.9
Decline to answer	3	0.2	0.3	0.2
19. How often do you want to review changes to insulin doses?				
Never	34	2.2	4.9	1.3
Daily	413	26.8	35.9	23.7
Weekly	450	29.2	23.3	31.2
Monthly	371	24.1	19.5	25.6
Every few months	248	16.1	15.4	16.3
Decline to answer	26	1.7	1	1.9
20. How interested would you be in a phone app with the following new features? Note this phone app would automatically receive your glucose level from a CGM and receive insulin doses from insulin pens.				
1 = not interested, 2 = very interested				
a. Displays your predicted glucose trends over the next couple of hours				
1	67	4.3	4.9	4.2
2	46	3	4.1	2.6
3	80	5.2	5.9	4.9
4	232	15	16.4	14.6
5	1111	72	68.7	73.2
Decline to Answer	6	0.4	0	0.5
b. Assists you in avoiding hypoglycemia				
1	49	3.2	2.8	3.3
2	32	2.1	2.6	1.9
3	60	3.9	4.9	3.6
4	187	12.1	12.6	12
5	1209	78.4	77.2	78.8
Decline to Answer	5	0.3	0	0.4
c. Sets goals, such as a target average glucose				
1	107	6.9	6.7	7
2	97	6.3	5.6	6.5
3	184	11.9	14.6	11
4	322	20.9	23.8	19.9
5	827	53.6	49.2	55.1
Decline to Answer	5	0.3	0	0.4

d. Suggests behavioral changes, such as sleep, exercise or nutrition based on past glucose control				
1	126	8.2	8.2	8.2
2	109	7.1	6.2	7.4
3	197	12.8	14.4	12.2
4	383	24.8	26.7	24.2
5	722	46.8	44.6	47.6
Decline to answer	5	0.3	0	0.4
e. Calculates insulin doses				
1	130	8.4	5.4	9.5
2	98	6.4	6.2	6.4
3	169	11	10.5	11.1
4	290	18.8	21.3	18
5	848	55	56.7	54.4
Decline to answer	7	0.5	0	0.6
f. Provides suggestions on how much short acting insulin to give for meal				
1	108	7	4.6	7.8
2	75	4.9	4.4	5
3	144	9.3	10	9.1
4	309	20	21.8	19.4
5	900	58.4	59.2	58.1
Decline to answer	6	0.4	0	0.5
g. Provides insulin on board as a feature				
1	100	6.5	6.4	6.5
2	68	4.4	5.4	4.1
3	134	8.7	10.8	8
4	230	14.9	18.7	13.6
5	989	64.1	56.9	66.6
Decline to Answer	21	1.4	1.8	1.2
h. Suggests changes to timing of insulin doses ratio				
1	69	4.5	2.8	5
2	53	3.4	4.4	3.1
3	122	7.9	12.1	6.5
4	334	21.7	22.6	21.4
5	956	62	57.7	63.5
Decline to Answer	8	0.5	0.5	0.5
i. Provides suggestions on how much long acting (basal) insulin to give				
1	333	21.6	5.1	27.2
2	81	5.3	7.7	4.4

3	145	9.4	10.3	9.1
4	214	13.9	21.5	11.3
5	680	44.1	55.4	40.3
Decline to Answer	89	5.8	0	7.7
j. Is able to look at past meal glucose and suggest insulin to carb ratio				
1	71	4.6	4.4	4.7
2	39	2.5	4.1	2
3	112	7.3	8.2	6.9
4	310	20.1	20.3	20.1
5	1005	65.2	62.8	66
Decline to Answer	5	0.3	0.3	0.3
k. Is able to count carbs				
1	76	4.9	6.4	4.4
2	49	3.2	4.9	2.6
3	115	7.5	10	6.6
4	241	15.6	15.9	15.5
5	1054	68.4	62.1	70.5
Decline to answer	7	0.5	0.8	0.3
l. Enables you to enter meal characteristics (carbohydrate, protein, fat content) to help manage glucose				
1	93	6	6.9	5.7
2	83	5.4	7.4	4.7
3	155	10.1	11	9.7
4	322	20.9	24.1	19.8
5	882	57.2	50.3	59.5
Decline to answer	7	0.5	0.3	0.5
m. Enables you to capture photos of your meals and relate this to your glucose management (e.g. a certain meal resulted in higher glucose, or required more insulin)				
1	174	11.3	12.1	11
2	122	7.9	7.9	7.9
3	216	14	17.9	12.7
4	273	17.7	18.7	17.4
5	751	48.7	43.1	50.6
Decline to answer	6	0.4	0.3	0.4
n. Assists you in monitoring glucose during and after exercise				
1	59	3.8	3.1	4.1
2	52	3.4	4.1	3.1
3	117	7.6	8.7	7.2

4	290	18.8	23.3	17.3
5	1019	66.1	60.8	67.9
Decline to Answer	5	0.3	0	0.4
o. Displays predicted glucose trends taking exercise into consideration (i.e. if you are about to exercise or have just exercised)				
1	58	3.8	3.1	4
2	45	2.9	3.6	2.7
3	95	6.2	9	5.2
4	273	17.7	18.7	17.4
5	1066	69.1	65.6	70.3
Decline to Answer	5	0.3	0	0.4
p. Uses an activity tracker to monitor exercise and improve glucose trends over the next couple of hours				
1	64	4.2	3.1	4.5
2	58	3.8	4.6	3.5
3	133	8.6	12.6	7.3
4	302	19.6	23.6	18.2
5	977	63.4	55.4	66.1
Decline to Answer	8	0.5	0.8	0.4
21. How interested are you in a phone app that sends the following alerts?				
1 = not interested, 5 = very interested				
a. Hypoglycemic events				
1	73	4.7	4.6	4.8
2	44	2.9	2.6	3
3	108	7	10	6
4	220	14.3	16.2	13.6
5	1094	70.9	66.7	72.4
Decline to answer	3	0.2	0	0.3
b. Predicted hypoglycemic event				
1	52	3.4	2.6	3.6
2	40	2.6	2.6	2.6
3	96	6.2	7.9	5.6
4	300	19.5	22.3	18.5
5	1051	68.2	64.6	69.4
Decline to answer	3	0.2	0	0.3
c. Predicted nighttime hypoglycemic events				
1	54	3.5	2.6	3.8
2	44	2.9	3.1	2.8
3	70	4.5	7.9	3.4

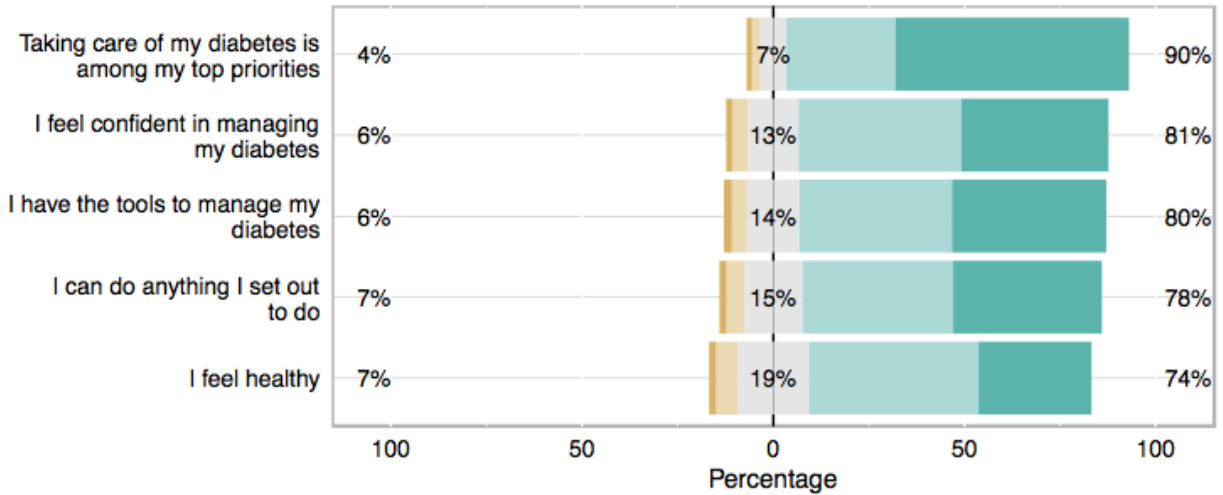
4	237	15.4	16.2	15.1
5	1133	73.5	70.3	74.6
Decline to answer	4	0.3	0	0.3
d. Hyperglycemic events				
1	78	5.1	4.4	5.3
2	68	4.4	4.1	4.5
3	168	10.9	13.6	10
4	330	21.4	24.4	20.4
5	895	58	53.6	59.5
Decline to answer	3	0.2	0	0.3
e. Predicted hyperglycemic events				
1	64	4.2	3.3	4.4
2	65	4.2	4.4	4.2
3	152	9.9	11.8	9.2
4	352	22.8	26.7	21.5
5	905	58.7	53.8	60.3
Decline to answer	4	0.3	0	0.3
f. Missed insulin doses				
1	195	12.6	9.7	13.6
2	96	6.2	4.9	6.7
3	200	13	10.3	13.9
4	250	16.2	18.5	15.5
5	790	51.2	56.4	49.5
6	11	0.7	0.3	0.9
Decline to answer	0	-		
g. Suggested changes to insulin dosing or carbohydrate intake based on exercise				
1	72	4.7	4.9	4.6
2	53	3.4	3.3	3.5
3	147	9.5	12.1	8.7
4	350	22.7	26.2	21.5
5	916	59.4	53.6	61.4
Decline to answer	4	0.3	0	0.3
h. Reminders to check your blood glucose				
1	382	24.8	22.3	25.6
2	201	13	11	13.7
3	329	21.3	22.6	20.9
4	217	14.1	13.6	14.2
5	409	26.5	30.5	25.2

	6	4	0.3	0	0.3
Decline to answer	0	-	-	-	-
22. How soon would you want to know about a low blood sugar that will likely occur in the future?					
Never	5	0.3	0.5	0.3	
5 mins prior	92	6	6.7	5.7	
15 mins prior	490	31.8	36.2	30.3	
30 mins prior	742	48.1	43.3	49.7	
>1 hour prior	212	13.7	13.3	13.9	
Decline to answer	1	0.1	0	0.1	
23. How often would you want to be alerted to improve your glucose control (to avoid lows and highs)?					
I would not want to be alerted by a phone app to help control my diabetes	175	11.3	13.1	10.8	
Up to 1-3 times per day	749	48.6	50.3	48	
Up to 4-6 times per day	270	17.5	17.9	17.4	
More than 6 times per day if needed	320	20.8	16.9	22	
Decline to answer	28	1.8	1.8	1.8	
24. How often do you want to review changes to insulin doses, for the purpose of adjusting basal doses, correction doses, and insulin to carb ratio?					
Never	40	2.6	3.8	2.2	
Daily	363	23.5	34.4	19.9	
Weekly	627	40.7	32.3	43.5	
Monthly	350	22.7	19.2	23.9	
Every few months	146	9.5	9	9.6	
Decline to answer	16	1	1.3	1	

Supplementary Table 1: Survey Questions and Responses. Complete text of the survey questions with the total number of responses, percentage for all respondents, respondent using MDI and respondents using pumps for each answer option for each question.

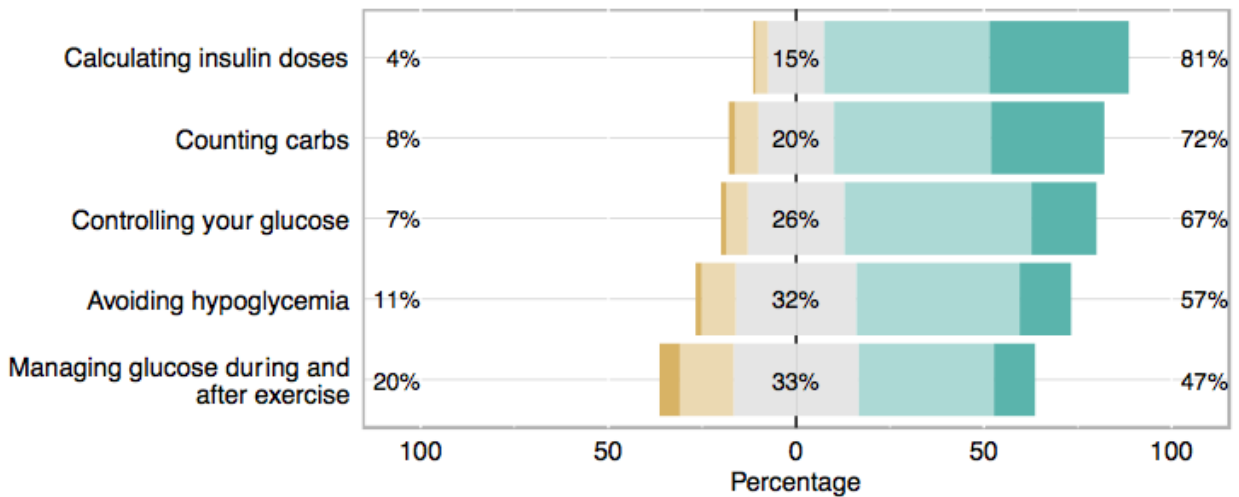
Please mark your response to the following statements

1 = Strongly disagree, 5 = Strongly agree



On a scale from 1–5, how confident are you in:

1 = Not confident, 5 = Very confident



Supplementary Figure 1: Likert responses for question motivation and confidence questions. Responses related to the survey respondents' (a) motivation and (b) personal confidence in diabetes management. The percentages listed are for scores of 1, 3, and 5 from left to right. (1=Not interested, 3=Neutral, 5=Very interested)