FLEX data are provided in the datasets listed in this table. Further information on the measured are given in the protocol. All variables are measured on participant unless noted as parent.								
Measure (name of SAS dataset containing variables from measure)	**BL**	**3**	**6**	**12**	**18**	**24**	**30**	**Variables***
Group Assignment (group)								This dataset has no "visit" variable because randomization status and site can be merged across timepoints. Site_number="Study site, 1 or 2" Group="Initial group assignment" Group_ext="Re-assignment of group at 18 months"
Baseline Characteristics (basevars)								This dataset has no "visit" variable because these are variables that were only measured at baseline and can be merged across timepoints. Sex="Participant sex" hispanic_base='Hispanic Ethnicity (1=yes, 0=no)' income_base='Total income in primary household' race_youth_base='Race of youth (7 categories)' maxedu_base='Maximum education of parent ' raceeth_base='4 category race and ethnicity' whiterace_base='White race (1=yes, 0=no)' hba1c_pcnt_base='HbA1c pcnt' high_a1c_base='High A1c at baseline (>9.0%)'
Previous day's Insulin use (F26_ins)	X		X		X			F26Q6_pump_or_injct_use_ystrday="Yesterday's insulin delivery (pump=1, injection=2)" F26Q6a_basal_ins_yesterday="Yesterday's basal dose" F26Q6a_bolus_ins_yesterday="Yesterday's bolus dose" F26Q6a_total_ins_yesterday="Yesterday's total insulin dose (units)" F26Q12_highest_ed_primary="Highest education in primary household" income="Total income in primary household" total_dose= "Total previous day insulin dose" instype="Prev. day insulin type"
Age and disease duration (agedur)	X	X	X	X	X	X	X	Note: DOB was recorded in month and year only to preserve participants' privacy, so age may be up to 30 days from actual age. age="Age, yrs" dm_duration="Duration of diabetes, yrs";
24-hour diet recall (recall24)	X		X					

Previous Day Physical activity recall (pdpar)	X		X					Based on two recalls on the same days as the 24-hour food recalls. totmetc = 'Total Energy expenditure in METs, avg of 2 recalls' mmetc = 'Mean Energy expenditure in METs, avg of 2 recalls' hiblkc = 'Number of 30-min blocks of vigorous PA, avg of 2 recalls' modblkc = 'Number of 30-min blocks of moderate-to-vigorous PA, avg of 2 recalls' emc = 'Number of 30-min blocks of electronic media time, avg of 2 recalls' tvc = 'Number of 30-min blocks of TV time, avg of 2 recalls';
HbA1c (lab)	X	X	X	X	X	X	X	HbA1c_pcnt='HbA1c pcnt'
Fasting Lipids (lab)	X		X		X			F2Q8a_bld_gluc='Blood glucose' Fasting_calc='Fasting status of blood draw' tchol_mgdl='Total Cholesterol (mg/dL)' hdl_mgdl='HDL Cholesterol (mg/dL)' ldl_mgdl='LDL Cholesterol (mg/dL)' trig_mgdl='Triglycerides (mg/dL)' vldl_mgdl='VLDL Cholesterol (mg/dL)' high_ldl='1 if LDL above 100 mg/dL'
Continuous Glucose Monitoring (CGM)	X		X		X			See CGM data dictionary, below.
Form 3: Intention and Motivation (F03)	X	X	X	X	X	X	X	Intention_score="Intent to manage diabetes (0-10)" motivation_score="Motivation to manage diabetes (0-10)";
Form 4: Social Problem-Solving Inventory-Revised : Short (SPSI)	X	X	X	X	X	X	X	Raw data are not included. ppo_raw="SPSI-R:S Positive Problem Orientation, raw score" npo_raw="SPSI-R:S Negative Problem Orientation, raw score" rps_raw="SPSI-R:S Rational Problem Solving, raw score" ics_raw="SPSI-R:S Impulsivity/Carelessness style, raw score" as_raw="SPSI-R:S Avoidance Style, raw score" spsi_total_raw="SPSI-R:S Total raw score" ppo_stan="SPSI-R:S Positive Problem Orientation, standardized score" npo_stan="SPSI-R:S Negative Problem Orientation, standardized score"

								rps_stan="SPSI-R:S Rational Problem Solving, standardized score" ics_stan="SPSI-R:S Impulsivity/Carelessness style, standardized score" as_stan="SPSI-R:S Avoidance Style, standardized score" spsi_total_stan="SPSI-R:S Total standardized score"
Form 5: Physical Exam (F05)	X		X		X	X	X	The raw data are not included, but the following are the physical exam data, based on averages of two measurements: height_calc="Calculated height, cm" weight_calc="Calculated weight, kgs" nat_waist_calc="Calculated waist circ. cm"; sbp = 'Systolic Blood Pressure'; dbp='Diastolic Blood Pressure'; BMI_raw= "BMI score, based on calculated height and weight"
Form 6: Peds QL – Generic Quality of Life-Parent (F0607)	X	X	X	X	X	X	X	pedsql_parent="Parent-report Peds QL";
Form 7: Peds QL – Generic Quality of Life (F0607)	X	X	X	X	X	X	X	pedsql_youth="Youth reportPeds QL"
Form 8: Diabetes Self-Management Assessment (DSMP-SR) –Parent (F08)	X	X	X	X	X	X	X	dsmp_parent_total='Total DSMP score, parent';
Form 9: Diabetes Self-Management Assessment (DSMP-SR) (F09)	X	X	X	X	X	X	X	dsmp_youth_total='Total DSMP score, youth';
Form 10: Diabetes Knowledge Assessment (F10)	X		X		X			diab_knowledge="Diabetes knowledge total score (range -12-12)";
Form 11: Diabetes Family Conflict Scale – Parent (F11)	X	X	X	X	X	X	X	IP_total_parent="DFC: Family interaction score, parent" IP_almost_always_parent="DFC: Proportion of almost always in fam interaction, parent";
Form 12: Diabetes Family Conflict Scale (F12)	X	X	X	X	X	X	X	IP_total_participant="DFC: Family interaction score, participant" IP_almost_always_participant="DFC: Proportion of almost always in fam interaction, participant";
Form 13: Diabetes Family Responsibility – Parent (F13)	X	X	X	X	X	X	X	DFRS_parent_total="Diabetes Family Responsibility Scale (parent), Total Score. Range 1-3, high score indicates more child responsibility" dfrs_parent_indirect="Diabetes Family Responsibility Scale (parent), Indirect. Range 1-3, high score indicates more child responsibility" dfrs_parent_direct="Diabetes Family Responsibility Scale (parent), Direct. Range 1-3, high score indicates more child responsibility";

Form 14: Diabetes Family Responsibility (F14)	X	X	X	X	X	X	X	DFRS_child_total="Diabetes Family Responsibility Scale (child), Total Score. Range 1-3, high score indicates more child responsibility" dfrs_child_indirect="Diabetes Family Responsibility Scale (child), Indirect. Range 1-3, high score indicates more child responsibility" dfrs_child_direct="Diabetes Family Responsibility Scale (child), Direct. Range 1-3, high score indicates more child responsibility";
Form 15: Fear of Hypoglycemia –Parent (F15)	X		X		X			LBS_maintainhigh_parent="LBS survey, parent: Behavior subscale" LBS_helpless_parent="LBS survey, parent: Worry subscale" LBS_NegSC_parent="LBS survey, parent: Worry about Negative Social consequences subscale" LBS_total_parent="LBS survey, parent: Total Score";
Form 16: Fear of Hypoglycemia (F16)	X		X		X			LBS_maintainhigh_child="LBS survey, child: Behavior subscale" LBS_helpless_child="LBS survey, child: Worry subscale" LBS_NegSC_child="LBS survey, child: Worry about Negative Social ocnsequences subscale" LBS_total_child="LBS survey, child: Total Score";
Form 17: Diabetes-Specific Quality of Life (PDQ) –Parent (F17)	X	X	X	X	X	X	X	Ped_diab_QL_parent="Pediatric Diabetes QOL score, parent";
Form 18: Diabetes-Specific Quality of Life (PDQ) (F18)	X	X	X	X	X	X	X	Ped_diab_QL_youth="Pediatric Diabetes QOL score, youth"
Form 19: Health Behaviors and Home Environment (F19)	X		X		X			(no calculated variables)
Form 20: Household food security- Parent (F20)								Raw data not provided. raw_fs= "Household food security (range, 0-18)" fs_cat="Household food security, 4 categories";
Form 21: Diabetes Eating Problem Survey (F21)	X		X		X			DEPS_total="Total DEPS, range 0-80"
Form 22: Health Utilities Index-Mark 3 (HUI)	X		X		X			Raw data are not included. hui2ov= "HUI2 Overall health state vector (Mark 2)" hui3ov= "HUI3 Overall health state vector (Mark 3)" hui3vl="HUI3: Vision Attribute Level" hui3hl="HUI3: Hearing Attribute Level" hui3sl="HUI3: Speech Attribute Level" hui3al="HUI3: Ambulation Attribute Level" hui3dl="HUI3: Dexterity Attribute Level" hui3el="HUI3: Emotion Attribute Level"

								hui3cl="HUI3: Cognition Attribute Level" hui3pl="HUI3: Pain Attribute Level" hui2sl="HUI2: Sensation Attribute Level" hui2ml="HUI2: Mobility Attribute Level" hui2el="HUI2: Emotion Attribute Level" hui2cl="HUI2: Cognition Attribute Level" hui2bl="HUI2: Self-care Attribute Level" hui2pl="HUI2: Pain Attribute Level";
Form 28: Health History and Diabetes Care (F28)	X		X		X			CGM_use_recent="CGM use in past 30 days (1=yes, 0=no)";
Form 29: Depression symptoms (CES-D) (F29)	X	X	X	X	X	X	X	CESDtot="CES-D Total Score" cesd_depressed="CES-D Score above 24 (1=yes, 0=no)";
Form 30 male/Form 31 female: Tanner Stage (F30, F31)	X		X		X			(no calculated variables)
Form 38: Outcome Expectations for Diabetes Self-Management (F38)	X	X	X	X	X	X	X	OEDM_N="Outcome Expectations: Fewer Negative expectations" OEDM_P="Outcome Expectations: More positive expectations"
Form 39: Self-Efficacy for Diabetes Self-Management (F39)	X	X	X	X	X	X	X	Self_eff_DM="Self-Efficacy for Diabetes Self-Management";
* **newid, timepoint, and raw variables from the original forms are also included in the data, except where noted. Variable names for the raw variables are provided as hidden MS Word text on the original forms.**								

CGM data dictionary

CGM variables recommended by the International Consensus (Diabetes Care 2017; 40:1631-1640)

	Metric	Variable name	Notes
1	Mean glucose	glumean	
2	Percent of time <54 (clinically significant/very low/immediate action required)	Glubelow54	
3	Percent time 54-<70 (alert/low/monitor)	Glu5470	
4	Percent time in target range(70-180)	gluinrange	
5	Percent time >180 (alert/elevated/monitor)	Gluabove180	
6	Percent time >250(clinically significant/very elevated/immediate action required)	Gluabove250	
7	Glycemic variability: CV and whether CV is stable (<36%)	Glucv Glycemic_variability	
8	eA1c (not used in FLEX)		
9	See footnote		
10	Collection period: 7 days, which is less than the 2-wk minimum recommended by the consensus statement.		
11	Percentage of expected CGM readings	perc_exp_readings	Computed overall, not separately for day and night.
12	Episodes of hypo/hypercglycemia (number of episodes of hypoglycemia lasting 15 or more minutes) FLEX hasn't used hyperglycemia)	Num_hypo54 Num_hypo70	This number is not adjusted for time-needs to be divided by time worn (gluhours) to account for variation in wear time.
13	AUC and AOC	Variables starting with gluAOC and gluAUC	
14	LBGI and HBGI	gluLBGI, gluHBGI	

Note: The recommendations are to calculate the metrics overall, for daytime (6am-midnight) and for nighttime (midnight to 6 am). The variable names given above are for the whole 24-hr period; append _day or _night on the end to find the variables for day and night (in the case of episodes of hypo/hyperglycemia, append day or night without the underscore).

Other variables:
cgm_median is the median glucose level (also cgm_medianday and cgm_mediannight)

gluhours (gluhoursday, gluhoursnight) is the total number of hours of CGM data

CGM_lt24 indicates those with insufficient CGM data to compute the CGM metrics, defined in flex to be less than 24 hours total. This variable is CGM_lt18day for the daytime and CGM_lt6night for night.