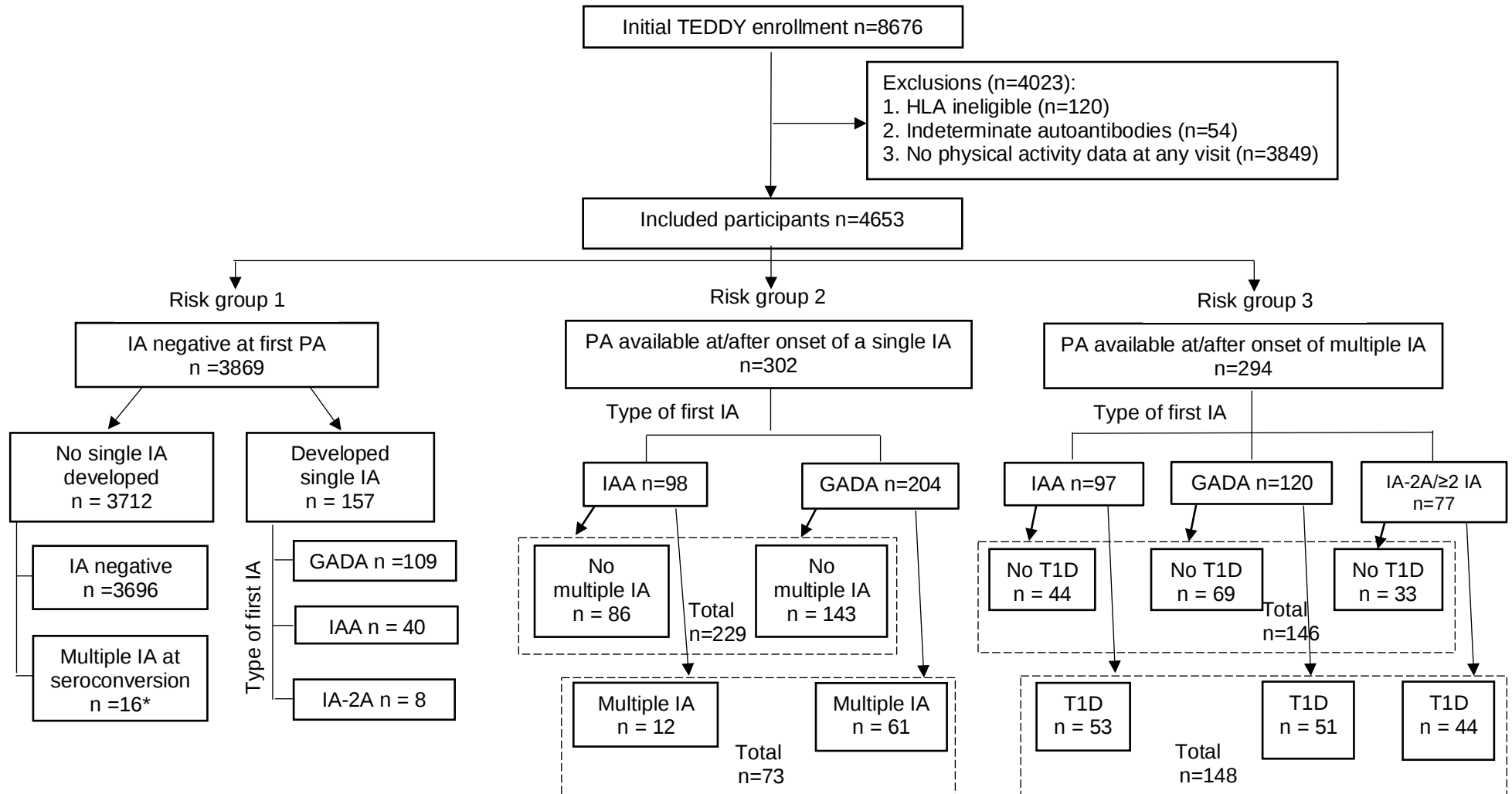
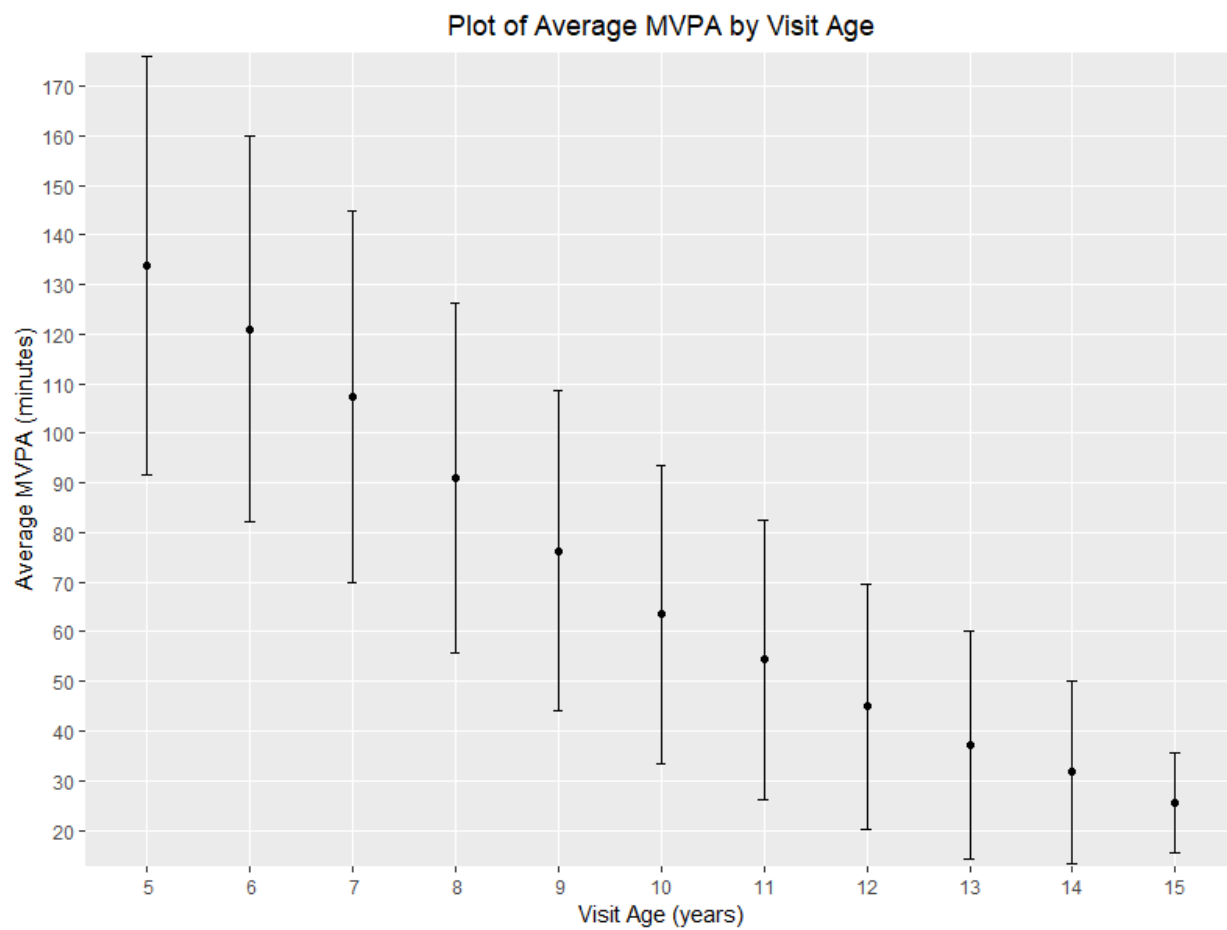




Supplemental Figure 1. Three risk groups analyzed in the study. PA = physical activity; IA = islet autoantibody; IAA = insulin autoantibody; GADA = glutamate decarboxylase autoantibody; IA-2A = insulinoma-associated protein 2 autoantibody; T1D = type 1 diabetes

* Censored at the time of multiple IA seroconversion in the time-to-event analyses.



Supplemental Figure 2. Average minutes spent on moderate-to-vigorous physical activity (MVPA, mean $\pm$ SD) per day between ages 5 and 15 in the TEDDY study.

Supplemental Table 1. Comparison of TEDDY participant characteristics by the availability of physical activity data at the time of developing single islet autoantibody (IA), multiple islet autoantibodies, and type 1 diabetes, respectively.

Event		Single IA (n=157)		Multiple IA (n=73)		Type 1 Diabetes (n=148)	
Activity data availability at the outcome		Yes	No	Yes	No	Yes	No
Characteristic	n (%)	102 (65.0)	55 (35.0)	55 (75.3)	18 (24.7)	87 (58.8)	61 (41.2)
Country n (%)	US	36 (35.3)	19 (34.5)	16 (29.1)	10 (55.6)	32 (36.8)	27 (44.3)
	Finland	22 (21.6)	8 (14.5)	9 (16.4)	3 (16.7)	28 (32.2)	10 (16.4)
	Germany	2 (2.0)	5 (9.1)	2 (3.6)	2 (11.1)	2 (2.3)	6 (9.8)
	Sweden	42 (41.2)	23 (41.8)	28 (50.9)	3 (16.7)	25 (28.7)	18 (29.5)
	p-value*	0.171		0.0504		0.0512	
Family History of Type 1 Diabetes n (%)	Yes	13 (12.7)	9 (16.4)	9 (16.4)	5 (27.8)	16 (18.4)	16 (26.2)
	p-value*	0.533		0.286		0.254	
Sex n (%)	Female	48 (47.1)	28 (50.9)	28 (50.9)	10 (55.6)	36 (41.4)	27 (44.3)
	p-value*	0.645		0.732		0.727	
HLA Genotype DR3/4 n (%)	Yes	51 (50.0)	22 (40.0)	29 (52.7)	10 (55.6)	49 (56.3)	38 (62.3)
	p-value*	0.231		0.835		0.467	
Type of first IA n (%)	GADA	76 (74.5)	33 (60.0)	47 (85.5)	14 (77.8)	33 (37.9)	18 (29.5)
	IAA	21 (20.6)	19 (34.5)	8 (14.5)	4 (22.2)	27 (31.0)	26 (42.6)
	IA-2A	5 (4.9)	3 (5.5)			6 (6.9)	0 (0.0)
	≥ 2 IA					21 (24.1)	17 (27.9)
	p-value*	0.147		0.446		0.090	
Age at first PA (years)	Mean (SD)	5.7 (0.9)	6 (0.9)	5.8 (1.2)	5.7 (0.8)	5.9 (1.2)	6 (1.4)
	Median	5.0	6.0	5.0	5.5	5.0	5.0
	Q1-Q3	5.0-6.0	5.0-7.0	5.0-6.0	5.0-6.0	5.0-6.0	5.0-6.0
	p-value*	0.125		0.933		0.913	

* P-values were based on Wilcoxon rank sum tests for comparing continuous variables, and Chi-square tests for comparing categorical variables between those with and those without activity data at the time of every event.

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