

Growth Charts for Individuals with Mucopolysaccharidosis VI (Maroteaux-Lamy syndrome)

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Supplement Table I: The height L, M and S parameters and percentiles for the MPS VI patients.

Age(y)	L, M and S VALUES ¹			PERCENTILES ²						
	L	M	S	P5	P10	P25	P50	P75	P90	P95
2	1	81.36919	0.06481083	72.69489	74.61079	77.8122	81.36919	84.92619	88.12759	90.0435
2.25	1	82.65639	0.0646181	73.87106	75.81149	79.05387	82.65639	86.2589	89.50128	91.44171
2.5	1	83.8856	0.06459299	74.97309	76.94162	80.23093	83.8856	87.54028	90.82959	92.79812
2.75	1	85.05862	0.06474061	76.00083	78.00144	81.34438	85.05862	88.77287	92.11581	94.11642
3	1	86.17785	0.06506547	76.95482	78.99193	82.39585	86.17785	89.95985	93.36377	95.40088
3.25	1	87.24837	0.0655738	77.83782	79.91634	83.38947	87.24837	91.10726	94.58039	96.65891
3.5	1	88.27671	0.0662728	78.65375	80.77919	84.33071	88.27671	92.22271	95.77423	97.89967
3.75	1	89.26879	0.06716803	79.40623	81.58459	85.22454	89.26879	93.31304	96.95299	99.13135
4	1	90.22908	0.06826152	80.09814	82.33578	86.07478	90.22908	94.38338	98.12238	100.36
4.25	1	91.15981	0.06955215	80.73084	83.03431	86.8833	91.15981	95.43631	99.2853	101.5888
4.5	1	92.05885	0.07103531	81.30244	83.67823	87.64807	92.05885	96.46962	100.4395	102.8152
4.75	1	92.92538	0.07270177	81.81302	84.26743	88.36864	92.92538	97.48213	101.5833	104.0378
5	1	93.76058	0.07453863	82.26505	84.80409	89.04671	93.76058	98.47445	102.7171	105.2561
5.25	1	94.56493	0.07652945	82.66113	85.29034	89.68365	94.56493	99.44622	103.8395	106.4687
5.5	1	95.33762	0.07865356	83.00346	85.72772	90.27987	95.33762	100.3954	104.9475	107.6718
5.75	1	96.07639	0.08088714	83.29366	86.117	90.83469	96.07639	101.3181	106.0358	108.8591
6	1	96.77705	0.08320881	83.53153	86.4571	91.34559	96.77705	102.2085	107.097	110.0226
6.25	1	97.43992	0.08560631	83.71942	86.74989	91.81368	97.43992	103.0662	108.1299	111.1604
6.5	1	98.07092	0.08807736	83.86295	87.00109	92.24479	98.07092	103.897	109.1407	112.2789
6.75	1	98.67905	0.09062747	83.96907	87.21809	92.64706	98.67905	104.711	110.14	113.389
7	1	99.2724	0.09326012	84.04409	87.40759	93.02787	99.2724	105.5169	111.1372	114.5007
7.25	1	99.85715	0.09597361	84.09344	87.5752	93.39307	99.85715	106.3212	112.1391	115.6208
7.5	1	100.4381	0.09876106	84.12217	87.72589	93.74757	100.4381	107.1286	113.1503	116.754
7.75	1	101.0192	0.1016128	84.13503	87.86427	94.09566	101.0192	107.9427	114.1741	117.9034
8	1	101.6034	0.1045172	84.13625	87.99426	94.44083	101.6034	108.7661	115.2126	119.0706

8.25	1	102.1926	0.1074646	84.12866	88.11848	94.78528	102.1926	109.5999	116.2667	120.2565
8.5	1	102.7875	0.1104477	84.1141	88.23854	95.13029	102.7875	110.4448	117.3365	121.461
8.75	1	103.3889	0.1134592	84.09406	88.35574	95.47683	103.3889	111.3009	118.422	122.6837
9	1	103.9959	0.1164902	84.06931	88.47054	95.82479	103.9959	112.167	119.5213	123.9225
9.25	1	104.6073	0.1195303	84.04049	88.58313	96.17368	104.6073	113.041	120.6315	125.1742
9.5	1	105.2216	0.1225674	84.00836	88.69378	96.5229	105.2216	113.9203	121.7495	126.4349
9.75	1	105.8392	0.1255905	83.97516	88.80431	96.87363	105.8392	114.8048	122.8741	127.7033
10	1	106.4609	0.1285891	83.94331	88.91681	97.2273	106.4609	115.6944	124.0049	128.9784
10.25	1	107.0862	0.131552	83.91445	89.03243	97.58436	107.0862	116.588	125.1399	130.2579
10.5	1	107.7145	0.1344703	83.88981	89.15202	97.94495	107.7145	117.4841	126.277	131.5392
10.75	1	108.3477	0.1373385	83.87177	89.27782	98.31109	108.3477	118.3843	127.4176	132.8236
11	1	108.9883	0.1401542	83.86285	89.41235	98.68533	108.9883	119.2912	128.5642	134.1137
11.25	1	109.6384	0.1429149	83.86526	89.55783	99.06986	109.6384	120.207	129.719	135.4116
11.5	1	110.2999	0.1456173	83.88093	89.71613	99.46649	110.2999	121.1332	130.8836	136.7188
11.75	1	110.9741	0.1482561	83.912	89.88926	99.877	110.9741	122.0712	132.0589	138.0362
12	1	111.6625	0.150825	83.96073	90.07928	100.3031	111.6625	123.022	133.2458	139.3643
12.25	1	112.366	0.153317	84.0291	90.28793	100.7462	112.366	123.9859	134.4441	140.7029
12.5	1	113.0847	0.1557248	84.11866	90.51644	101.2069	113.0847	124.9625	135.6529	142.0507
12.75	1	113.818	0.1580396	84.23081	90.7658	101.6855	113.818	125.9506	136.8703	143.4053
13	1	114.5648	0.160251	84.36668	91.03659	102.1817	114.5648	126.9478	138.0929	144.7628
13.25	1	115.3229	0.1623478	84.52724	91.32913	102.6948	115.3229	127.951	139.3166	146.1185
13.5	1	116.0902	0.1643188	84.71329	91.64356	103.2237	116.0902	128.9566	140.5368	147.4671
13.75	1	116.8651	0.1661557	84.92563	91.98016	103.768	116.8651	129.9622	141.75	148.8045
14	1	117.6471	0.1678522	85.16567	92.33992	104.3278	117.6471	130.9665	142.9544	150.1286
14.25	1	118.436	0.1694014	85.43494	92.72396	104.9036	118.436	131.9685	144.1481	151.4371
14.5	1	119.231	0.1707964	85.73481	93.13317	105.4955	119.231	132.9664	145.3288	152.7271
14.75	1	120.0315	0.1720309	86.06667	93.56854	106.1038	120.0315	133.9591	146.4944	153.9962
15	1	120.8366	0.1730988	86.43173	94.03079	106.7285	120.8366	134.9447	147.6424	155.2414
15.25	1	121.6447	0.1739928	86.83088	94.52027	107.3689	121.6447	135.9205	148.7691	156.4585

15.5	1	122.4539	0.174706	87.26482	95.03709	108.0242	122.4539	136.8835	149.8707	157.6429
15.75	1	123.2624	0.1752332	87.73413	95.58134	108.6937	123.2624	137.8312	150.9435	158.7907
16	1	124.0689	0.1755694	88.23952	96.15322	109.3767	124.0689	138.7611	151.9845	159.8982
16.25	1	124.8727	0.1757111	88.78214	96.75353	110.0734	124.8727	139.6721	152.9919	160.9633
16.5	1	125.6744	0.1756596	89.36274	97.38296	110.7844	125.6744	140.5643	153.9658	161.986
16.75	1	126.4743	0.1754179	89.98183	98.04199	111.5102	126.4743	141.4384	154.9066	162.9668
17	1	127.273	0.17499	90.63966	98.73094	112.2511	127.273	142.2949	155.8151	163.9064
17.25	1	128.0705	0.1743796	91.33619	99.44978	113.0072	128.0705	143.1338	156.6913	164.8049
17.5	1	128.8668	0.173591	92.0712	100.1983	113.7783	128.8668	143.9552	157.5352	165.6623
17.75	1	129.6612	0.1726293	92.84394	100.9758	114.5639	129.6612	144.7586	158.3466	166.4785
18	1	130.4529	0.1715012	93.65283	101.7809	115.3626	130.4529	145.5431	159.1248	167.2529

¹Expressed as equivalent degrees of freedom, *edf*

²The percentile data is represented in graphic form in Supplement Figure 4.

Supplement Table II: The height L, M and S parameters and percentiles for the MPS VI growth chart for rapidly progressing patients.

Age(y)	L, M and S VALUES ¹			PERCENTILES ²						
	L	M	S	P5	P10	P25	P50	P75	P90	P95
2	1	81.06272	0.06395017	72.53584	74.41919	77.56618	81.06272	84.55926	87.70625	89.5896
2.25	1	82.16033	0.0650672	73.36703	75.30923	78.55455	82.16033	85.76611	89.01144	90.95363
2.5	1	83.22474	0.06618438	74.1646	76.16573	79.50953	83.22474	86.93995	90.28375	92.28488
2.75	1	84.25546	0.06730174	74.92825	76.98837	80.43074	84.25546	88.08018	91.52255	93.58267
3	1	85.25226	0.06841928	75.658	77.7771	81.31803	85.25226	89.18649	92.72742	94.84652
3.25	1	86.21501	0.06953702	76.35389	78.53194	82.17136	86.21501	90.25867	93.89809	96.07613
3.5	1	87.14365	0.07065498	77.01607	79.25297	82.99073	87.14365	91.29658	95.03434	97.27124
3.75	1	88.03795	0.07177316	77.64451	79.94013	83.77601	88.03795	92.29989	96.13577	98.43139
4	1	88.89737	0.07289157	78.23894	80.59309	84.52676	88.89737	93.26797	97.20165	99.5558
4.25	1	89.72119	0.07401023	78.7989	81.21132	85.24239	89.72119	94.2	98.23106	100.6435
4.5	1	90.50886	0.07512914	79.3241	81.79449	85.92242	90.50886	95.09529	99.22322	101.6936
4.75	1	91.26132	0.0762483	79.81557	82.34362	86.56787	91.26132	95.95477	100.179	102.7071
5	1	91.98039	0.07736773	80.2751	82.86047	87.18051	91.98039	96.78027	101.1003	103.6857
5.25	1	92.66786	0.07848743	80.70441	83.3468	87.76212	92.66786	97.5736	101.9889	104.6313
5.5	1	93.32539	0.0796074	81.10513	83.80424	88.31435	93.32539	98.33644	102.8465	105.5457
5.75	1	93.95466	0.08072764	81.47887	84.23443	88.83883	93.95466	99.07049	103.6749	106.4304
6	1	94.55703	0.08184815	81.82699	84.63869	89.33694	94.55703	99.77712	104.4754	107.2871
6.25	1	95.13457	0.08296894	82.15138	85.019	89.81068	95.13457	100.4585	105.2501	108.1178
6.5	1	95.68968	0.08408999	82.45429	85.37762	90.26237	95.68968	101.117	106.0017	108.9251
6.75	1	96.2245	0.08521132	82.73766	85.71653	90.69408	96.2245	101.7549	106.7325	109.7113
7	1	96.74097	0.08633292	83.00327	86.03754	91.10767	96.74097	102.3743	107.4444	110.4787
7.25	1	97.24067	0.08745477	83.25257	86.34215	91.5047	97.24067	102.9766	108.1392	111.2288
7.5	1	97.72486	0.08857687	83.48674	86.63155	91.88637	97.72486	103.5634	108.8182	111.963
7.75	1	98.19465	0.08969919	83.70681	86.90677	92.25375	98.19465	104.1355	109.4825	112.6825
8	1	98.65096	0.09082172	83.91364	87.1687	92.60777	98.65096	104.6941	110.1332	113.3883

8.25	1	99.09435	0.09194445	84.1078	87.41791	92.94896	99.09435	105.2397	110.7708	114.0809
8.5	1	99.52515	0.09306736	84.28963	87.65472	93.27766	99.52515	105.7726	111.3956	114.7607
8.75	1	99.94312	0.09419043	84.45899	87.879	93.59369	99.94312	106.2926	112.0072	115.4273
9	1	100.3475	0.09531365	84.61529	88.09008	93.89632	100.3475	106.7986	112.6048	116.0796
9.25	1	100.7371	0.09643701	84.75774	88.28713	94.18461	100.7371	107.2897	113.1871	116.7165
9.5	1	101.1112	0.09756049	84.88565	88.46943	94.45776	101.1112	107.7647	113.7531	117.3368
9.75	1	101.4694	0.09868407	84.99879	88.63668	94.71544	101.4694	108.2233	114.3021	117.94
10	1	101.8113	0.09980773	85.09705	88.78876	94.95746	101.8113	108.6652	114.8339	118.5256
10.25	1	102.1364	0.1009315	85.17998	88.92518	95.18324	102.1364	109.0896	115.3476	119.0928
10.5	1	102.4441	0.1020552	85.24721	89.04551	95.39232	102.4441	109.4958	115.8426	119.6409
10.75	1	102.7347	0.1031791	85.29917	89.1502	95.5851	102.7347	109.8844	116.3193	120.1703
11	1	103.0087	0.1043029	85.33623	89.23958	95.76192	103.0087	110.2555	116.7778	120.6812
11.25	1	103.2663	0.1054268	85.3587	89.31398	95.92309	103.2663	110.6095	117.2186	121.1739
11.5	1	103.508	0.1065508	85.36716	89.37396	96.06916	103.508	110.9469	117.6421	121.6489
11.75	1	103.7354	0.1076747	85.36292	89.42089	96.20158	103.7354	111.2692	118.0499	122.1079
12	1	103.9507	0.1087987	85.34785	89.45669	96.32238	103.9507	111.5789	118.4446	122.5535
12.25	1	104.1558	0.1099228	85.32375	89.48323	96.43354	104.1558	111.8781	118.8284	122.9879
12.5	1	104.3531	0.1110468	85.29237	89.50233	96.53701	104.3531	112.1691	119.2038	123.4137
12.75	1	104.5444	0.1121709	85.25548	89.51587	96.63479	104.5444	112.4541	119.573	123.8334
13	1	104.732	0.1132951	85.21478	89.52557	96.72874	104.732	112.7352	119.9384	124.2492
13.25	1	104.9176	0.1144193	85.17181	89.53311	96.82065	104.9176	113.0146	120.3021	124.6634
13.5	1	105.1031	0.1155435	85.12801	89.53993	96.91209	105.1031	113.2941	120.6662	125.0781
13.75	1	105.2895	0.1166678	85.08432	89.54709	97.00418	105.2895	113.5749	121.032	125.4948
14	1	105.4782	0.1177922	85.04168	89.55553	97.09797	105.4782	113.8584	121.4008	125.9146
14.25	1	105.6701	0.1189165	85.00095	89.56618	97.19447	105.6701	114.1456	121.7739	126.3391
14.5	1	105.8661	0.120041	84.96282	89.57976	97.29446	105.8661	114.4377	122.1524	126.7693
14.75	1	106.067	0.1211655	84.92789	89.59692	97.39867	106.067	114.7353	122.537	127.2061
15	1	106.2735	0.12229	84.89667	89.6182	97.5077	106.2735	115.0393	122.9288	127.6503
15.25	1	106.4862	0.1234146	84.86961	89.64411	97.62209	106.4862	115.3503	123.3283	128.1028

15.5	1	106.7057	0.1245393	84.84718	89.67512	97.7424	106.7057	115.6691	123.7363	128.5643
15.75	1	106.9323	0.125664	84.82953	89.71141	97.86883	106.9323	115.9958	124.1532	129.0351
16	1	107.1663	0.1267887	84.81686	89.75322	98.00166	107.1663	116.3309	124.5793	129.5157
16.25	1	107.4078	0.1279135	84.80935	89.80072	98.14109	107.4078	116.6746	125.015	130.0063
16.5	1	107.657	0.1290383	84.8069	89.85384	98.28707	107.657	117.0269	125.4602	130.5071
16.75	1	107.9134	0.1301631	84.80919	89.91225	98.43925	107.9134	117.3875	125.9145	131.0175
17	1	108.1764	0.131288	84.81578	89.97549	98.59715	108.1764	117.7557	126.3774	131.5371
17.25	1	108.4457	0.1324129	84.82626	90.04314	98.76031	108.4457	118.1311	126.8483	132.0652
17.5	1	108.7207	0.1335379	84.84014	90.11468	98.9282	108.7207	118.5131	127.3267	132.6012
17.75	1	109.0004	0.1346628	84.85677	90.18943	99.10007	109.0004	118.9008	127.8114	133.1441
18	1	109.2842	0.1357878	84.87548	90.26669	99.27516	109.2842	119.2933	128.3018	133.693

¹Expressed as equivalent degrees of freedom, *edf*

²The percentile data is represented in graphic form in Supplement Figure 5.

Supplement Table III: The height L, M and S parameters of the MPS VI growth chart for slowly progressing patients.

Age(y)	L, M and S VALUES ¹			PERCENTILES ²						
	L	M	S	P5	P10	P25	P50	P75	P90	P95
2	1	80.59758	0.06553924	71.90897	73.82803	77.03472	80.59758	84.16044	87.36713	89.28619
2.25	1	81.99123	0.06675318	72.98866	74.97707	78.29964	81.99123	85.68283	89.00539	90.9938
2.5	1	83.38334	0.06797309	74.0606	76.11973	79.56045	83.38334	87.20623	90.64695	92.70608
2.75	1	84.77369	0.06919891	75.12457	77.25579	80.81696	84.77369	88.73042	92.29159	94.42281
3	1	86.16216	0.07043056	76.18044	78.38512	82.06905	86.16216	90.25526	93.93919	96.14387
3.25	1	87.54995	0.07166882	77.22915	79.50872	83.31779	87.54995	91.7821	95.59118	97.87075
3.5	1	88.93905	0.07291494	78.2722	80.6282	84.56499	88.93905	93.3131	97.24989	99.6059
3.75	1	90.33142	0.07417015	79.31107	81.74516	85.81241	90.33142	94.85043	98.91768	101.3518
4	1	91.72903	0.07543569	80.34724	82.86115	87.06181	91.72903	96.39626	100.5969	103.1108
4.25	1	93.13269	0.07671227	81.38116	83.97675	88.31385	93.13269	97.95153	102.2886	104.8842
4.5	1	94.54057	0.0779996	82.41122	85.09025	89.5668	94.54057	99.51434	103.9909	106.6699
4.75	1	95.94949	0.07929622	83.43474	86.1989	90.81768	95.94949	101.0813	105.7001	108.4642
5	1	97.35614	0.08060002	84.44913	87.29993	92.06348	97.35614	102.6488	107.4124	110.2632
5.25	1	98.75706	0.08190876	85.45172	88.3905	93.30106	98.75706	104.2131	109.1236	112.0624
5.5	1	100.1487	0.08322016	86.43986	89.46776	94.52725	100.1487	105.7702	110.8297	113.8576
5.75	1	101.5275	0.08453196	87.41082	90.52879	95.73879	101.5275	107.3162	112.5262	115.6441
6	1	102.8894	0.08584187	88.36169	91.57045	96.93215	102.8894	108.8466	114.2083	117.4171
6.25	1	104.2311	0.08714812	89.29003	92.5901	98.10438	104.2311	110.3579	115.8722	119.1722
6.5	1	105.5511	0.08844972	90.19477	93.58655	99.25405	105.5511	111.8481	117.5156	120.9074
6.75	1	106.8491	0.08974654	91.076	94.55983	100.3811	106.8491	113.317	119.1383	122.6221
7	1	108.1252	0.09103859	91.93394	95.51013	101.4858	108.1252	114.7645	120.7402	124.3164
7.25	1	109.3795	0.09232583	92.76885	96.43768	102.5681	109.3795	116.1909	122.3213	125.9901
7.5	1	110.612	0.09360779	93.58096	97.34265	103.6283	110.612	117.5958	123.8814	127.6431
7.75	1	111.8227	0.09488368	94.37054	98.22523	104.6662	111.8227	118.9791	125.4201	129.2748
8	1	113.0114	0.09615269	95.13784	99.0856	105.6822	113.0114	120.3406	126.9372	130.8849

8.25	1	114.1781	0.09741397	95.88313	99.92397	106.676	114.1781	121.6801	128.4322	132.473
8.5	1	115.3227	0.09866666	96.60673	100.7406	107.648	115.3227	122.9974	129.9048	134.0387
8.75	1	116.4452	0.09990939	97.30904	101.5357	108.5982	116.4452	124.2922	131.3548	135.5814
9	1	117.5453	0.1011404	97.99036	102.3095	109.5266	117.5453	125.5641	132.7812	137.1003
9.25	1	118.6229	0.1023577	98.65112	103.0623	110.4333	118.6229	126.8125	134.1834	138.5946
9.5	1	119.6777	0.1035591	99.29186	103.7945	111.3183	119.6777	128.0372	135.5609	140.0636
9.75	1	120.7102	0.1047421	99.91356	104.5069	112.1823	120.7102	129.238	136.9134	141.5068
10	1	121.7206	0.105904	100.5173	105.2005	113.026	121.7206	130.4153	138.2407	142.9239
10.25	1	122.7094	0.107042	101.1042	105.8762	113.85	122.7094	131.5689	139.5427	144.3147
10.5	1	123.6771	0.1081529	101.6754	106.535	114.6551	123.6771	132.6991	140.8191	145.6787
10.75	1	124.6243	0.1092335	102.2327	107.1784	115.4424	124.6243	133.8062	142.0703	147.016
11	1	125.5522	0.1102801	102.7777	107.808	116.2133	125.5522	134.8911	143.2965	148.3267
11.25	1	126.4616	0.111289	103.3123	108.4254	116.969	126.4616	135.9543	144.4979	149.611
11.5	1	127.3535	0.1122564	103.8383	109.0321	117.7108	127.3535	136.9962	145.6749	150.8687
11.75	1	128.2286	0.1131785	104.3573	109.6298	118.44	128.2286	138.0173	146.8274	152.0999
12	1	129.0878	0.1140513	104.8712	110.22	119.1575	129.0878	139.0181	147.9556	153.3044
12.25	1	129.9316	0.114871	105.3816	110.804	119.8646	129.9316	139.9987	149.0593	154.4817
12.5	1	130.7603	0.1156333	105.8897	111.3829	120.5619	130.7603	140.9588	150.1377	155.6309
12.75	1	131.5737	0.1163344	106.3967	111.9576	121.2496	131.5737	141.8979	151.1899	156.7508
13	1	132.3716	0.1169706	106.9034	112.5286	121.9281	132.3716	142.8151	152.2146	157.8398
13.25	1	133.1533	0.1175386	107.4102	113.0962	122.5971	133.1533	143.7095	153.2104	158.8963
13.5	1	133.9181	0.1180353	107.9178	113.6605	123.2564	133.9181	144.5798	154.1756	159.9184
13.75	1	134.6656	0.1184576	108.4266	114.2221	123.906	134.6656	145.4252	155.1091	160.9046
14	1	135.3956	0.1188023	108.9376	114.7814	124.5462	135.3956	146.245	156.0098	161.8536
14.25	1	136.1078	0.1190659	109.4517	115.3393	125.1772	136.1078	147.0385	156.8764	162.764
14.5	1	136.8018	0.1192449	109.9695	115.896	125.7989	136.8018	147.8047	157.7077	163.6342
14.75	1	137.4764	0.1193378	110.4908	116.4511	126.4107	137.4764	148.5422	158.5017	164.4621
15	1	138.1302	0.1193436	111.0149	117.0039	127.0113	138.1302	149.2492	159.2566	165.2456
15.25	1	138.7617	0.1192616	111.5411	117.5534	127.5996	138.7617	149.9238	159.9701	165.9823

15.5	1	139.3696	0.1190907	112.0689	118.0989	128.1746	139.3696	150.5645	160.6402	166.6702
15.75	1	139.9527	0.1188297	112.5979	118.6398	128.7356	139.9527	151.1699	161.2656	167.3075
16	1	140.5105	0.1184778	113.128	119.176	129.282	140.5105	151.7389	161.8449	167.8929
16.25	1	141.0423	0.118034	113.6591	119.7073	129.8135	141.0423	152.2711	162.3773	168.4255
16.5	1	141.5489	0.1174991	114.1919	120.2343	130.3309	141.5489	152.7669	162.8635	168.9059
16.75	1	142.0312	0.1168748	114.7269	120.7576	130.8348	142.0312	153.2277	163.3048	169.3356
17	1	142.4903	0.116163	115.2645	121.2779	131.3261	142.4903	153.6545	163.7027	169.7161
17.25	1	142.9272	0.1153656	115.8054	121.7959	131.8056	142.9272	154.0488	164.0586	170.049
17.5	1	143.3432	0.1144845	116.3502	122.3122	132.2744	143.3432	154.4119	164.3742	170.3362
17.75	1	143.7395	0.1135215	116.8995	122.8277	132.7335	143.7395	154.7455	164.6512	170.5794
18	1	144.1177	0.1124789	117.4543	123.3435	133.1841	144.1177	155.0513	164.8919	170.7811

¹Expressed as equivalent degrees of freedom, *edf*

²The percentile data is represented in graphic form in Supplement Figure 6.

Supplement Table IV: Pre-ERT data points per patient by age category.

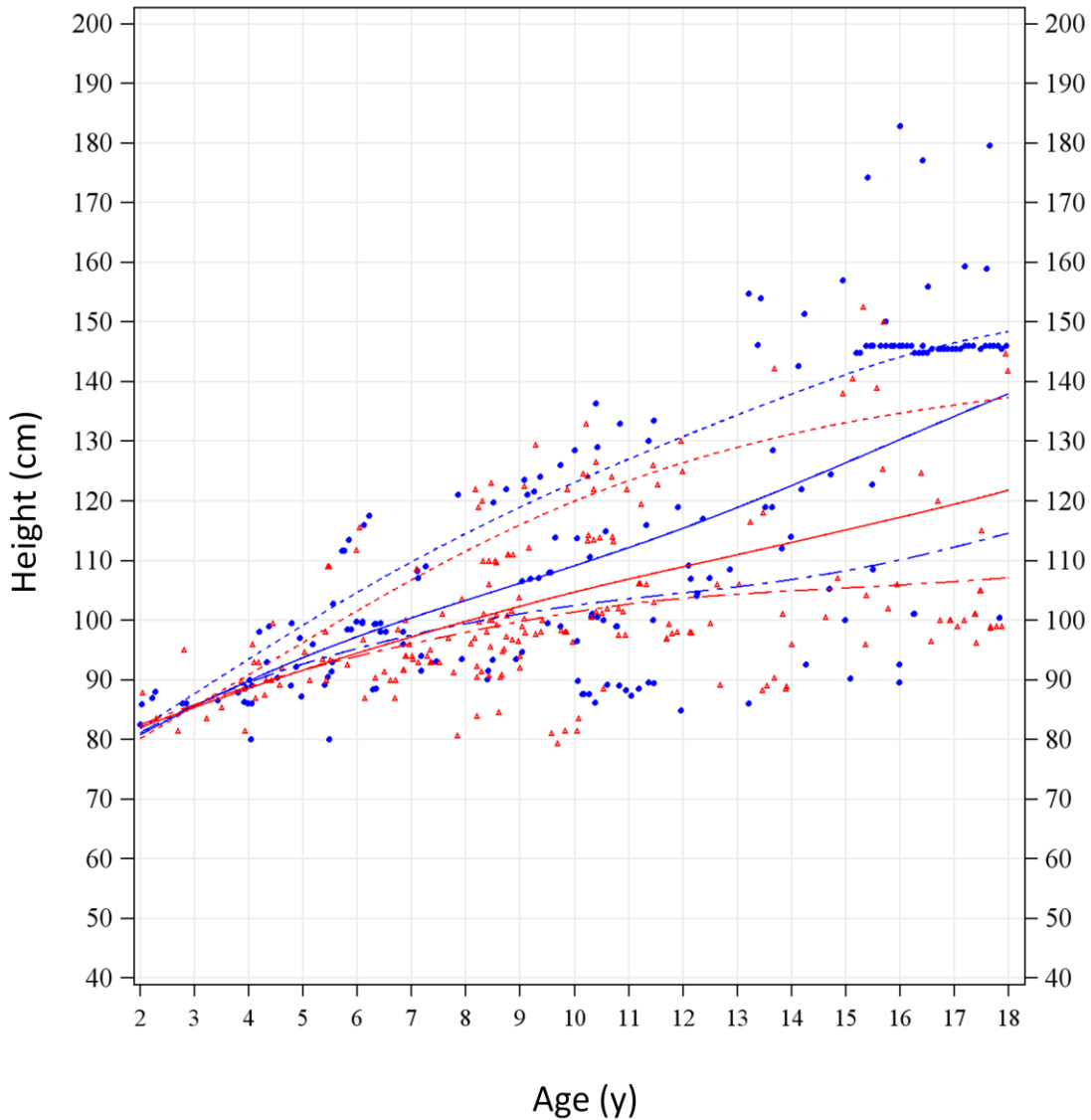
Age Groups (years) ¹	Number of Patients	Number of pre-ERT data points	Min and Max data points per patient	Mean (SD) data points per patient	Median number of data points per patient
<2	14	26	1-7	1.9(1.7)	1
≤4	26	46	1-10	1.8(1.8)	1
>4 to ≤7	49	75	1-9	1.5(1.4)	1
>7 to ≤10	47	103	1-8	2.2(1.8)	1
>10 to ≤13	37	84	1-7	2.3(1.9)	1
>13 to ≤18	49	114	1-36	2.3(5.1)	1
>18 to ≤25	34	91	1-41	2.7(6.9)	1
>25	24	45	1-6	1.9(1.2)	1.5
2-18	172	396	1-36	2.3(3.2)	1
≤25	207	513	1-77	2.5(5.5)	1

¹The number of patients for age range 2-18y in this Table is 172 instead of 168 (Table I) because some of the patients were counted more than once when the patients were stratified by age for this table. These patients provided height measurements across >1 age range in this table.

Supplement Figure 1: Reference growth curves for MPS VI boys and girls.

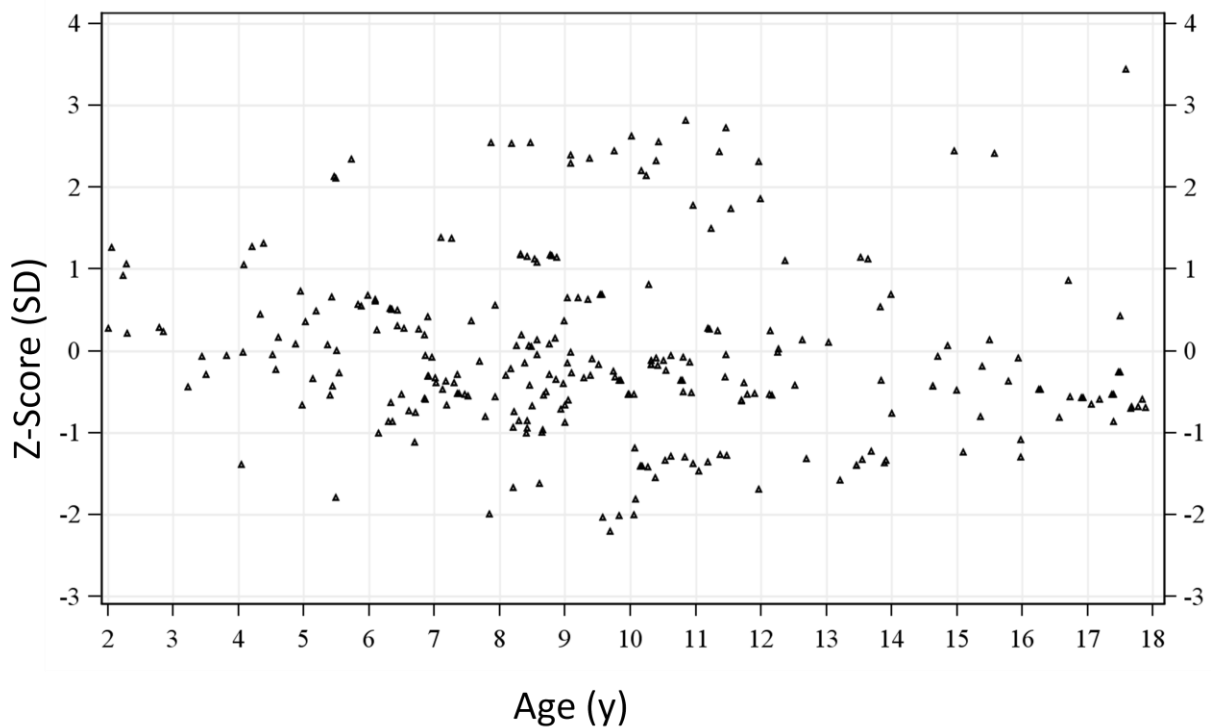
Height for age measurements for boys (blue) and girls (red) are plotted per baseline uGAG levels (dotted lines for those with low baseline uGAG levels and dotted-dashed lines for high baseline uGAG levels.)

Growth curve for the combined population is indicated by solid lines: blue line for boys and red for girls.



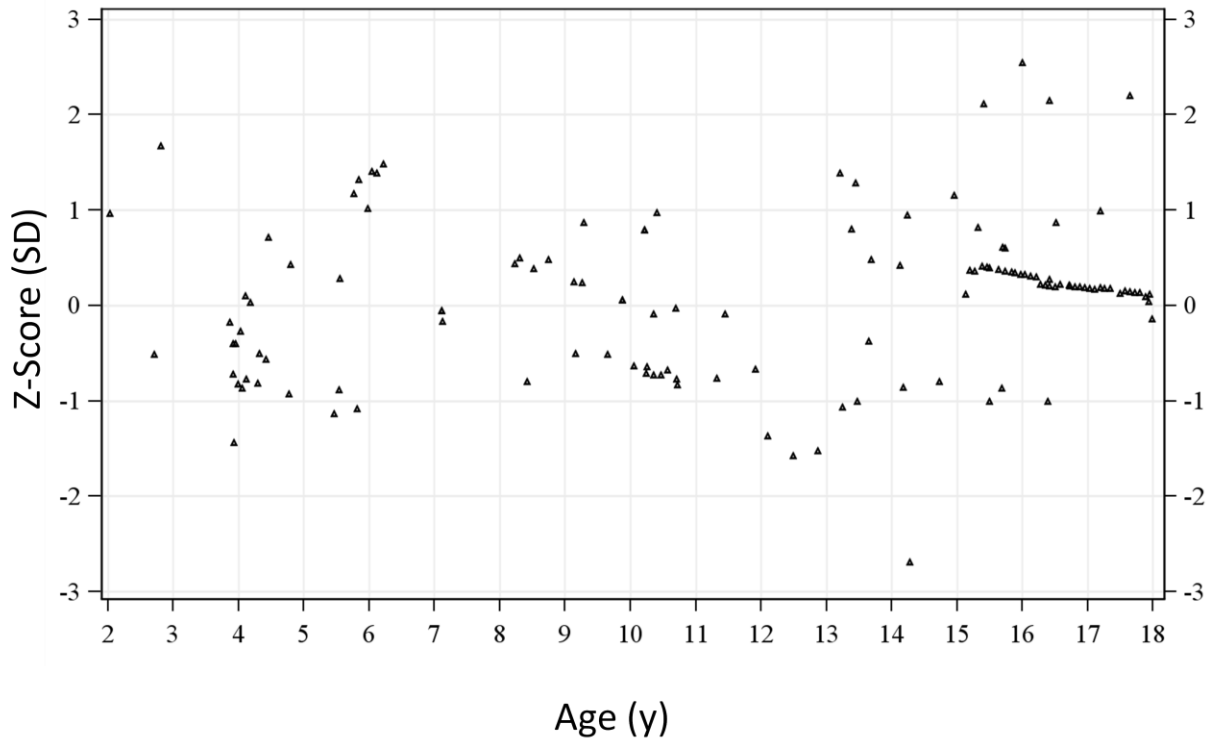
Supplement Figure 2: Z-scores for age for MPS VI patients age 2-18 y and rapidly progressive disease.

The reference growth curves for rapidly progressing MPS VI patients (Figure 2) was used to plot z-scores of patients with pre-ERT uGAG levels of >200 µg/mg creatinine. All available pre-ERT (or those obtained within 1 month of ERT) height measurements were plotted with some patients contributing >1 data point as described in the methods. The number of baseline visits within +2 and -2 SD were 243 of 268 (90.7%) for the rapidly progressing patients.



Supplement Figure 3: Z-scores for age for MPS VI patients age 2-18 y and slowly progressive disease.

The reference growth curves for slowly progressing MPS VI patients (Figure 3) was used to plot z-scores of patients with pre-ERT uGAG levels of ≤ 200 $\mu\text{g}/\text{mg}$ creatinine. All available pre-ERT (or those obtained within 1 month of ERT) height measurements were plotted with some patients contributing >1 data point as described in the methods. The number of baseline visits within $+2$ and -2 SD were 123 of 128 (96.1%) for the slowly progressing patients.



Supplement Figures 4-6 are enclosed as separate PDF files.