

Recent Growth
Grade 7/Year 8
Fast Track Project Technical Report
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SAS scoring program

Citation

Instrument

Petersen, A.C., Crockett, L., Richards, M. & Boyer, A. (1988). A self-report measure of pubertal status: Reliability, validity, and initial norms. *Journal of Youth and Adolescence*, 17, 117-133.

Reports

Rains, C. (2003). *Recent Growth* (Fast Track Project Technical Report). [On-line]. Available: <http://www.fasttrackproject.org/>

Nix, R.L. (2001). *Recent Growth* (Fast Track Project Technical Report). [On-line]. Available: <http://www.fasttrackproject.org/>

Jones, D. (1998). *Recent Growth* (Fast Track Project Technical Report). Nashville, TN: Vanderbilt University.

Data Sources

Raw: C8S

Scored: RGR8

I. Scale Description

The Recent Growth measure was adapted from the Pubertal Development Scale (Petersen et al., 1988). In year 8 of this study, Recent Growth is a 16-item scale that assesses children's physical development. There are three items – one each about growth spurts, body hair, and skin changes, such as acne – that both boys and girls answered. There are five items – one each about voice changes, facial hair, leg hair, shaving, and depth of voice – that only boys answered, and six items – two about breast development, two about the onset of menstruation, one about leg hair, and one about hip width – that only girls answered. In addition, both boys and girls were asked one final question comparing their development to other boys or girls at their school. Thus, each boy answers a total of 9 questions and each girl answers a total of 10 questions.

Unlike other scales that assess puberty timing through physicians' direct examinations or with the aid of figure drawings or photographs, Recent Growth relies on children's self-reports. In a large, longitudinal study of children from upper-middle income families, the authors of this scale have demonstrated that the pattern of means among items falls in the expected order; there is satisfactory internal consistency in children's responses; there are few instances in which children report being less well-developed in an area than they have reported previously; observer's global ratings of children's development were

reasonably highly correlated with children's responses; and, direct measures of children's peak height velocity showed the appropriate pattern of correlations with children's self-reports.

II. Report Sample

These exploratory analyses were conducted on the first cohort on the high-risk control sample (N = 155) and the normative sample (N = 387, 463 with overlap) from the eighth year of the study. 87 records were missing the complete measure. 27 records were missing from the control sample (6 from Durham, 6 from Nashville, 8 from Pennsylvania, and 7 from Washington) and 74 records were missing from the normative sample (12 from Durham, 24 from Nashville, 17 from Pennsylvania, and 21 from Washington). These numbers may reflect some overlap between the two samples.

In breaking down the numbers by sex, there were a total of 209 females and 254 males in the first cohort for year 8 of the study. For the males, 50 were missing the complete measure. 20 records were missing from the control sample (4 from Durham, 5 from Nashville, 5 from Pennsylvania, and 6 from Washington) and 40 records were missing from the normative sample (6 from Durham, 13 from Nashville, 9 from Pennsylvania, and 12 from Washington). These numbers may reflect some overlap between the two samples. Four items for the males showed a high number of missing responses: 1-Growth Spurt (77 missing), 3-Skin Changes (61 missing), 4-Voice Changes (73 missing), and 5-Facial Hair (65 missing).

For the females, 37 were missing the complete measure. 7 were from the control sample (2 from Durham, 1 from Nashville, 3 from Pennsylvania, and 1 from Washington) and 34 were from the normative sample (6 from Durham, 11 from Nashville, 8 from Pennsylvania, and 9 from Washington). These numbers may reflect some overlap between the two samples. One item for the females showed a higher number of missing responses: 1-Growth Spurt (69 missing).

III. Scaling

The scales for scoring the items on the Recent Growth measure vary with the question being asked. A number of the items for this measure are scored on a scale of 1 to 5, with a low score representing less physical development and a high score representing greater physical development. For several questions in year 8 of the study (as in earlier years), 5 is an "I don't know" option; these questions include growth spurt, body hair, skin changes, breast development for girls, and voice changes and facial hair for boys. An "I don't know" option was included in the measure, since it was self-administered, because this measure was administered as a paper and pencil measure and it was unclear if a child was refusing to answer the question, didn't know the answer, or considered the question not applicable. In later years (9 and 10), the "I don't know" option was dropped from the computer-administered version of the measure and interviewers administering the interview could use the options of "don't know," "refuse to answer," or "not applicable" to clarify a child's responses. In year 8, these "I don't know" responses are recoded to either missing or to "didn't start" depending upon the scale involved in the scoring program.

The measure starts out with three general questions for the child about growth in height, body hair, and skin changes. These are the same questions for both boys and girls. After these questions, the questions become sex specific: a male child has 6 additional questions to answer while a female child has 7 additional questions. For males, the topics include how deep their voices are, whether they have hair on their face, whether they have hair on their legs, how often they shave, whether their voice is lower than when they were in grade school, and how their development compares to other boys in their school. For females, the topics include whether their breasts have started to grow, whether they have begun to menstruate, at what age they began to menstruate, whether they have hair on their legs, whether their breasts are bigger than when they were younger, whether their hips are bigger than when they were younger, and how their development compares to other girls in their school.

For the first two scales, in order to do gender comparisons, all of the items were standardized before scale creation, with a mean of 0.0 and standard deviations of 1.0 due to the variety of scales involved for

the items. Summing across the items in the instrument by sex creates two subscales. The two scores (*Puberty Scale-Standardized with no missing* and *Puberty Scale-Standardized with missing*) are differentiated by the way the “I don’t know” response was regarded in the sum score. For the first score, items were standardized and summed after recoding “I don’t know” to indicate “growth not yet started” (i.e. recoded “5” to be “1”). For the second score, “I don’t know” was first recoded to be missing, and then the responses were standardized and summed. For females on both scores, item 5 (menstruation onset) was reversed before it was standardized. The coding for this second score reduced the number of missing values for some items and the score was somewhat more reliable than the first score. Subjects were given a missing value on any score in which half or more of the items making up the score were missing. If fewer than half were missing, the missing items were replaced with the mean of the non-missing items.

Two other scales were created to be able to compare data across the years. For the other two scales, *Puberty Scales with no missing* and *Puberty Scales with missing*, the items were not standardized but were rescaled for consistency, so that “0” represents less physical development and a “5” represents greater physical development. The items were then summed to create the scales. Again, for females on both of these scores, item 5 (menstruation onset) was reversed before it was rescaled. As with the first two scores, subjects were given a missing value on any score in which half or more of the items making up the score were missing. If fewer than half were missing, the missing items were replaced with the mean of the non-missing items.

Cronbach’s alphas were calculated for each score by sex and can be seen in the following table:

Subscales	Cronbach’s Alpha	
	Control Sample	Normative Sample
Puberty Scale-Standardized-no missing-Males (RGR8PB1)	.72	.72
Puberty Scale-Standardized-no missing-Females (RGR8PB1)	.47	.64
Puberty Scale-Standardized-with missing-Males (RGR8PB2)	.76	.72
Puberty Scale-Standardized-with missing-Females (RGR8PB2)	.64	.68
Puberty Scale-no missing for Males (RGR8PB3)	.72	.71
Puberty Scale-no missing for Females (RGR8PB3)	.45	.61
Puberty Scale-with missing for Males (RGR8PB4)	.75	.72
Puberty Scale-with missing for Females (RGR8PB4)	.61	.66

While most of the scales showed an adequate level of internal reliability, the control samples for *Puberty Scale Standardized with no missing for females* and for *Puberty Scale with no missing for females* showed a low level of internal consistency. The reliabilities were slightly higher for those scores that converted “I don’t know” to missing as opposed to converting them to ““growth not yet started”.” The scores were also higher for male scores than for female scores.

IV. Differences between Groups

A series of t-tests comparing the high-risk control sample and the normative sample (including the overlap) indicated no significant differences for any of the subscales.

Recent Growth—Item for Females

Variable	Normative Sample		Control Sample		DF	t Value	Pr > t
	Mean	Std Dev	Mean	Std Dev			
Age when menstruation started (C8SG6)	11.69	1.06	12.05	0.81	131	1.65	0.1023

Recent Growth—Subscales for Females

Variable	Normative Sample		Control Sample		DF	t Value	Pr > t
	Mean	Std Dev	Mean	Std Dev			
Puberty Scale-Standardized—no missing (RGR8PB1)	0.03	0.52	0.05	0.44	169	0.27	0.7879
Puberty Scale-Standardized—with missing (RGR8PB2)	0.02	0.53	0.10	0.46	168	0.77	0.4420
Puberty Scale—no missing (RGR8PB3)	2.89	0.69	2.92	0.61	169	0.19	0.8521
Puberty Scale—with missing (RGR8PB4)	2.92	0.68	2.97	0.60	168	0.34	0.7356

Recent Growth—Subscales for Males

Variable	Normative Sample		Control Sample		DF	t Value	Pr > t
	Mean	Std Dev	Mean	Std Dev			
Puberty Scale-Standardized—no missing (RGR8PB1)	-0.04	0.51	-0.07	0.55	202	-0.43	0.6689
Puberty Scale-Standardized—with missing (RGR8PB2)	-0.04	0.51	-0.08	0.56	200	-0.60	0.5508
Puberty Scale—no missing (RGR8PB3)	1.96	0.68	1.92	0.73	202	-0.43	0.6692
Puberty Scale—with missing (RGR8PB4)	2.03	0.67	1.98	0.73	200	-0.53	0.5950

V. Recommendations for Use

Analysts should note that the subscales were normally distributed for the normative males and females and for the control males and females.

Analysts should select the subscales that they want to use carefully. If an analysis of gender differences is desired, then analysts should use the first two subscales with the standardized items. If an analysis of pubertal growth over a number of years is desired, then analysts should use the second two scales with a rescaling of the variables to make the values consistent.

Analysts who use this version of the measure might also want to consider recoding the “I don’t know” responses to missing. The reliabilities for the scales using this method were adequate compared to the coding of these variable responses to “growth not yet started.”

VI. Item and Scale Means and SDs

Recent Growth Items Normative Sample for Females Year 8

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
C8Sa1	Growth Spurt	127	2.606	0.725	1.000	4.000
C8Sa2	Body Hair	151	3.033	0.616	1.000	4.000
C8Sa3	Skin Changes	153	2.608	0.788	1.000	4.000
C8Sg4	Breast Development	150	2.800	0.645	1.000	4.000
C8Sg5	Menstruation Onset	155	3.477	1.142	1.000	4.000
C8Sg6	Age of Menstruation (Years)	120	11.719	1.015	9.000	14.167
C8Sg7	Leg Hair	153	2.889	1.212	1.000	5.000
C8Sg8	Description of Breast Development	154	3.526	0.923	1.000	5.000
C8Sg9	Description of Hip Width	153	3.111	0.964	1.000	5.000
C8Sg10	Development compared - other girls	153	3.196	0.939	1.000	5.000
C8SA1B	Growth Spurt - no miss	156	2.308	0.906	1.000	4.000
C8SA2B	Body Hair - no miss	156	2.968	0.704	1.000	4.000
C8SA3B	Skin Changes - no miss	156	2.577	0.812	1.000	4.000
C8SG4B	Breast Development - no miss	156	2.731	0.722	1.000	4.000
C8SG7B	Leg Hair - no miss	153	2.889	1.212	1.000	5.000
C8SG8B	Description of Breast Development - no miss	154	3.526	0.923	1.000	5.000
C8SG9B	Description of Hip Width - no miss	153	3.111	0.964	1.000	5.000
C8SG10B	Development compared - other girls - no miss	153	3.196	0.939	1.000	5.000

Recent Growth Items Control Sample for Females Year 8

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
C8Sa1	Growth Spurt	25	2.800	0.645	2.000	4.000
C8Sa2	Body Hair	35	3.200	0.584	2.000	4.000
C8Sa3	Skin Changes	34	2.588	0.821	1.000	4.000
C8Sg4	Breast Development	31	2.871	0.670	2.000	4.000
C8Sg5	Menstruation Onset	35	3.486	1.147	1.000	4.000
C8Sg6	Age of Menstruation (Years)	28	12.051	0.813	10.250	14.083
C8Sg7	Leg Hair	35	2.800	1.346	1.000	5.000
C8Sg8	Description of Breast Development	35	3.629	0.877	2.000	5.000
C8Sg9	Description of Hip Width	35	3.029	0.707	2.000	4.000
C8Sg10	Development compared - other girls	35	3.314	1.022	1.000	5.000
C8SA1B	Growth Spurt - no miss	35	2.286	0.987	1.000	4.000
C8SA2B	Body Hair - no miss	35	3.200	0.584	2.000	4.000
C8SA3B	Skin Changes - no miss	35	2.543	0.852	1.000	4.000
C8SG4B	Breast Development - no miss	35	2.657	0.873	1.000	4.000
C8SG7B	Leg Hair - no miss	35	2.800	1.346	1.000	5.000
C8SG8B	Description of Breast Development - no miss	35	3.629	0.877	2.000	5.000
C8SG9B	Description of Hip Width - no miss	35	3.029	0.707	2.000	4.000
C8SG10B	Development compared - other girls - no miss	35	3.314	1.022	1.000	5.000

Recent Growth Subscales Normative Sample for Females Year 8

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
RGR8PB1	Puberty Scale Standardized - no miss Y8	155	0.022	0.506	-1.278	0.930
RGR8PB2	Puberty Scale Standardized - w/miss Y8	154	0.026	0.517	-1.334	0.931
RGR8PB3	Puberty Scale - no miss Y8	155	2.881	0.678	1.204	4.074
RGR8PB4	Puberty Scale - w/miss Y8	154	2.915	0.665	1.204	4.074

Recent Growth Subscales Control Sample for Females Year 8

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
RGR8PB1	Puberty Scale Standardized - no miss Y8	35	0.054	0.441	-0.995	1.180
RGR8PB2	Puberty Scale Standardized - w/miss Y8	35	0.100	0.458	-1.102	1.209
RGR8PB3	Puberty Scale - no miss Y8	35	2.917	0.605	1.435	4.398
RGR8PB4	Puberty Scale - w/miss Y8	35	2.968	0.603	1.435	4.398

Recent Growth Items Normative Sample for Males Year 8

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
C8Sa1	Growth Spurt	139	2.576	0.670	1.000	4.000
C8Sa2	Body Hair	154	2.695	0.609	1.000	4.000
C8Sa3	Skin Changes	151	2.417	0.828	1.000	4.000
C8Sb4	Voice Change	140	2.286	0.842	1.000	4.000
C8Sb5	Facial Hair	148	1.838	0.765	1.000	4.000
C8Sb6	Leg Hair	157	3.006	1.022	1.000	5.000
C8Sb7	Shaving	157	1.357	0.870	1.000	6.000
C8Sb8	Voice lower?	157	2.395	1.170	1.000	5.000
C8Sb9	Development compared - other boys	157	3.064	0.959	1.000	5.000
C8SA1B	Growth Spurt - no miss	157	2.395	0.807	1.000	4.000
C8SA2B	Body Hair - no miss	157	2.662	0.646	1.000	4.000
C8SA3B	Skin Changes - no miss	157	2.363	0.856	1.000	4.000
C8SB4B	Voice Change - no miss	157	2.146	0.890	1.000	4.000
C8SB5B	Facial Hair - no miss	157	1.790	0.768	1.000	4.000
C8SB6B	Leg Hair - no miss	157	3.006	1.022	1.000	5.000
C8SB7B	Shaving - no miss	157	1.357	0.870	1.000	6.000
C8SB8B	Voice lower? - no miss	157	2.395	1.170	1.000	5.000
C8SB9B	Development compared - other boys - no miss	157	3.064	0.959	1.000	5.000

Recent Growth Items Control Sample for Males Year 8

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
C8Sa1	Growth Spurt	81	2.469	0.672	1.000	3.000
C8Sa2	Body Hair	91	2.560	0.618	1.000	4.000
C8Sa3	Skin Changes	87	2.379	0.751	1.000	4.000
C8Sb4	Voice Change	84	2.333	0.883	1.000	4.000
C8Sb5	Facial Hair	86	1.733	0.676	1.000	3.000
C8Sb6	Leg Hair	93	2.925	0.981	1.000	5.000
C8Sb7	Shaving	93	1.505	0.996	1.000	6.000
C8Sb8	Voice lower?	93	2.387	1.319	1.000	5.000
C8Sb9	Development compared - other boys	93	3.118	1.092	1.000	5.000
C8SA1B	Growth Spurt - no miss	93	2.280	0.799	1.000	3.000
C8SA2B	Body Hair - no miss	93	2.527	0.653	1.000	4.000
C8SA3B	Skin Changes - no miss	93	2.290	0.802	1.000	4.000
C8SB4B	Voice Change - no miss	93	2.204	0.927	1.000	4.000
C8SB5B	Facial Hair - no miss	93	1.677	0.678	1.000	3.000
C8SB6B	Leg Hair - no miss	93	2.925	0.981	1.000	5.000
C8SB7B	Shaving - no miss	93	1.505	0.996	1.000	6.000
C8SB8B	Voice lower? - no miss	93	2.387	1.319	1.000	5.000
C8SB9B	Development compared - other boys - no miss	93	3.118	1.092	1.000	5.000

Recent Growth Subscales Normative Sample for Males Year 8

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
RGR8PB1	Puberty Scale Standardized - no miss Y8	157	-0.026	0.531	-1.251	1.531
RGR8PB2	Puberty Scale Standardized - w/miss Y8	156	-0.040	0.537	-1.354	1.501
RGR8PB3	Puberty Scale - no miss Y8	157	1.976	0.708	0.324	3.944
RGR8PB4	Puberty Scale - w/miss Y8	156	2.032	0.699	0.324	3.944

Recent Growth Subscales Control Sample for Males Year 8

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
RGR8PB1	Puberty Scale Standardized - no miss Y8	93	-0.068	0.548	-1.251	1.531
RGR8PB2	Puberty Scale Standardized - w/miss Y8	92	-0.081	0.562	-1.354	1.501
RGR8PB3	Puberty Scale - no miss Y8	93	1.917	0.730	0.324	3.944
RGR8PB4	Puberty Scale - w/miss Y8	92	1.978	0.731	0.370	3.944

VII. Item and Scale Correlations

Recent Growth Items Report Sample for Females with Missing Year 8

Pearson Correlation Coefficients Prob > r under H0: Rho=0 Number of Observations										
	C8Sa1	C8Sa2	C8Sa3	C8Sg4	C8Sg5	C8Sg6	C8Sg7	C8Sg8	C8Sg9	C8Sg10
C8Sa1 Growth Spurt	1.00000 140	0.21612 0.0115 136	-0.05311 0.5346 139	0.27920 0.0010 135	0.19758 0.0197 139	-0.05607 0.5625 109	-0.00172 0.9840 138	0.15427 0.0698 139	0.09686 0.2584 138	0.21681 0.0106 138
C8Sa2 Body Hair	0.21612 0.0115 136	1.00000 167	0.19326 0.0132 164	0.44240 <.0001 161	0.28670 0.0002 166	-0.25706 0.0033 129	0.06340 0.4185 165	0.32384 <.0001 166	0.18668 0.0160 166	0.25101 0.0011 166
C8Sa3 Skin Changes	-0.05311 0.5346 139	0.19326 0.0132 164	1.00000 169	0.15625 0.0478 161	0.16262 0.0352 168	0.01479 0.8668 131	0.11357 0.1452 166	0.12770 0.1001 167	0.12528 0.1078 166	0.13208 0.0898 166
C8Sg4 Breast Development	0.27920 0.0010 135	0.44240 <.0001 161	0.15625 0.0478 161	1.00000 164	0.27838 0.0003 163	-0.43267 <.0001 127	0.01250 0.8746 162	0.33560 <.0001 163	0.28648 0.0002 163	0.35950 <.0001 163
C8Sg5 Menstruation Onset	0.19758 0.0197 139	0.28670 0.0002 166	0.16262 0.0352 168	0.27838 0.0003 163	1.00000 171	. . 133	0.09668 0.2111 169	0.23575 0.0020 170	0.16754 0.0295 169	0.24540 0.0013 169
C8Sg6 Age of Menstruation (Years)	-0.05607 0.5625 109	-0.25706 0.0033 129	0.01479 0.8668 131	-0.43267 <.0001 127	. . 133	1.00000 . 133	0.04705 0.5907 133	-0.08413 0.3357 133	-0.25360 0.0033 132	-0.22761 0.0087 132
C8Sg7 Leg Hair	-0.00172 0.9840 138	0.06340 0.4185 165	0.11357 0.1452 166	0.01250 0.8746 162	0.09668 0.2111 169	0.04705 0.5907 133	1.00000 . 169	0.13746 0.0747 169	0.26895 0.0004 168	-0.02603 0.7376 168
C8Sg8 Description of Breast Development	0.15427 0.0698 139	0.32384 <.0001 166	0.12770 0.1001 167	0.33560 <.0001 163	0.23575 0.0020 170	-0.08413 0.3357 133	0.13746 0.0747 169	1.00000 170	0.47875 <.0001 169	0.34773 <.0001 169
C8Sg9 Description of Hip Width	0.09686 0.2584 138	0.18668 0.0160 166	0.12528 0.1078 166	0.28648 0.0002 163	0.16754 0.0295 169	-0.25360 0.0033 132	0.26895 0.0004 168	0.47875 <.0001 169	1.00000 169	0.19800 0.0099 169
C8Sg10 Development compared - other girls	0.21681 0.0106 138	0.25101 0.0011 166	0.13208 0.0898 166	0.35950 <.0001 163	0.24540 0.0013 169	-0.22761 0.0087 132	-0.02603 0.7376 168	0.34773 <.0001 169	0.19800 0.0099 169	1.00000 169

Recent Growth Items Report Sample for Females with No Missing Year 8

Pearson Correlation Coefficients										
Prob > r under H0: Rho=0										
Number of Observations										
	C8SA1B	C8SA2B	C8SA3B	C8SG4B	C8Sg5	C8Sg6	C8SG7B	C8SG8B	C8SG9B	C8SG10B
C8SA1B Growth Spurt - no miss	1.00000 0.7724 172	0.02221 0.7724 172	-0.05628 0.4634 172	0.05972 0.4365 172	0.13594 0.0762 171	0.10604 0.2244 133	0.02069 0.7895 169	0.03083 0.6898 170	0.11077 0.1516 169	0.09690 0.2101 169
C8SA2B Body Hair - no miss	0.02221 0.7724 172	1.00000 0.7724 172	0.12266 0.1089 172	0.43217 <.0001 172	0.20656 0.0067 171	-0.28076 0.0011 133	0.05078 0.5120 169	0.30799 <.0001 170	0.21416 0.0052 169	0.22070 0.0039 169
C8SA3B Skin Changes - no miss	-0.05628 0.4634 172	0.12266 0.1089 172	1.00000 0.7724 172	0.07947 0.3001 172	0.13970 0.0684 171	0.07152 0.4133 133	0.12614 0.1022 169	0.11721 0.1280 170	0.11081 0.1515 169	0.12216 0.1136 169
C8SG4B Breast Development - no miss	0.05972 0.4365 172	0.43217 <.0001 172	0.07947 0.3001 172	1.00000 0.7724 172	0.21752 0.0043 171	-0.41841 <.0001 133	0.02831 0.7148 169	0.31241 <.0001 170	0.27605 0.0003 169	0.28526 0.0002 169
C8Sg5 Menstruation Onset	0.13594 0.0762 171	0.20656 0.0067 171	0.13970 0.0684 171	0.21752 0.0043 171	1.00000 0.7724 171	. . 133	0.09668 0.2111 169	0.23575 0.0020 170	0.16754 0.0295 169	0.24540 0.0013 169
C8Sg6 Age of Menstruation (Years)	0.10604 0.2244 133	-0.28076 0.0011 133	0.07152 0.4133 133	-0.41841 <.0001 133	. . 133	1.00000 0.7724 133	0.04705 0.5907 133	-0.08413 0.3357 133	-0.25360 0.0033 132	-0.22761 0.0087 132
C8SG7B Leg Hair - no miss	0.02069 0.7895 169	0.05078 0.5120 169	0.12614 0.1022 169	0.02831 0.7148 169	0.09668 0.2111 169	0.04705 0.5907 133	1.00000 0.7724 169	0.13746 0.0747 169	0.26895 0.0004 168	-0.02603 0.7376 168
C8SG8B Description of Breast Development - no miss	0.03083 0.6898 170	0.30799 <.0001 170	0.11721 0.1280 170	0.31241 <.0001 170	0.23575 0.0020 170	-0.08413 0.3357 133	0.13746 0.0747 169	1.00000 0.7724 170	0.47875 <.0001 169	0.34773 <.0001 169
C8SG9B Description of Hip Width - no miss	0.11077 0.1516 169	0.21416 0.0052 169	0.11081 0.1515 169	0.27605 0.0003 169	0.16754 0.0295 169	-0.25360 0.0033 132	0.26895 0.0004 168	0.47875 <.0001 169	1.00000 0.7724 169	0.19800 0.0099 169
C8SG10B Development compared - other girls - no miss	0.09690 0.2101 169	0.22070 0.0039 169	0.12216 0.1136 169	0.28526 0.0002 169	0.24540 0.0013 169	-0.22761 0.0087 132	-0.02603 0.7376 168	0.34773 <.0001 169	0.19800 0.0099 169	1.00000 0.7724 169

Recent Growth Items Report Sample for Males with Missing Year 8

Pearson Correlation Coefficients Prob > r under H0: Rho=0 Number of Observations									
	C8SA1	C8SA2	C8SA3	C8SB4	C8SB5	C8SB6	C8SB7	C8SB8	C8SB9
C8SA1 Growth Spurt	1.00000 <.0001 177	0.29411 <.0001 175	0.14154 0.0632 173	0.24326 0.0018 163	0.12559 0.1017 171	0.25550 0.0006 177	-0.00452 0.9524 177	0.04007 0.5964 177	0.18249 0.0151 177
C8SA2 Body Hair	0.29411 <.0001 175	1.00000 199	0.22713 0.0016 190	0.26385 0.0004 178	0.21160 0.0036 187	0.24620 0.0005 199	0.12181 0.0865 199	0.08936 0.2094 199	0.19969 0.0047 199
C8SA3 Skin Changes	0.14154 0.0632 173	0.22713 0.0016 190	1.00000 193	0.32603 <.0001 175	0.32473 <.0001 182	0.27291 0.0001 193	0.07748 0.2841 193	0.22953 0.0013 193	0.19394 0.0069 193
C8SB4 Voice Change	0.24326 0.0018 163	0.26385 0.0004 178	0.32603 <.0001 175	1.00000 181	0.13677 0.0728 173	0.40827 <.0001 181	0.16937 0.0226 181	0.43793 <.0001 181	0.32158 <.0001 181
C8SB5 Facial Hair	0.12559 0.1017 171	0.21160 0.0036 187	0.32473 <.0001 182	0.13677 0.0728 173	1.00000 189	0.31082 <.0001 189	0.19928 0.0060 189	0.13748 0.0592 189	0.21003 0.0037 189
C8SB6 Leg Hair	0.25550 0.0006 177	0.24620 0.0005 199	0.27291 0.0001 193	0.40827 <.0001 181	0.31082 <.0001 189	1.00000 204	0.16594 0.0177 204	0.22797 0.0010 204	0.29088 <.0001 204
C8SB7 Shaving	-0.00452 0.9524 177	0.12181 0.0865 199	0.07748 0.2841 193	0.16937 0.0226 181	0.19928 0.0060 189	0.16594 0.0177 204	1.00000 204	0.19182 0.0060 204	0.17233 0.0137 204
C8SB8 Voice lower?	0.04007 0.5964 177	0.08936 0.2094 199	0.22953 0.0013 193	0.43793 <.0001 181	0.13748 0.0592 189	0.22797 0.0010 204	0.19182 0.0060 204	1.00000 204	0.29012 <.0001 204
C8SB9 Development compared - other boys	0.18249 0.0151 177	0.19969 0.0047 199	0.19394 0.0069 193	0.32158 <.0001 181	0.21003 0.0037 189	0.29088 <.0001 204	0.17233 0.0137 204	0.29012 <.0001 204	1.00000 204

Recent Growth Items Report Sample for Males with No Missing Year 8

Pearson Correlation Coefficients, N = 204 Prob > r under H0: Rho=0									
	C8SA1B	C8SA2B	C8SA3B	C8SB4B	C8SB5B	C8SB6B	C8SB7B	C8SB8B	C8SB9B
C8SA1B Growth Spurt - no miss	1.00000	0.34601 <.0001	0.23605 0.0007	0.22016 0.0016	0.14707 0.0358	0.10042 0.1530	-0.03724 0.5970	0.12745 0.0693	0.17408 0.0128
C8SA2B Body Hair - no miss	0.34601 <.0001	1.00000	0.19719 0.0047	0.22430 0.0013	0.20272 0.0036	0.18851 0.0069	0.11261 0.1088	0.10094 0.1509	0.20946 0.0026
C8SA3B Skin Changes - no miss	0.23605 0.0007	0.19719 0.0047	1.00000	0.28095 <.0001	0.25584 0.0002	0.21284 0.0022	0.03924 0.5774	0.24895 0.0003	0.21806 0.0017
C8SB4B Voice Change - no miss	0.22016 0.0016	0.22430 0.0013	0.28095 <.0001	1.00000	0.20256 0.0037	0.28764 <.0001	0.16025 0.0220	0.47596 <.0001	0.29970 <.0001
C8SB5B Facial Hair - no miss	0.14707 0.0358	0.20272 0.0036	0.25584 0.0002	0.20256 0.0037	1.00000	0.25442 0.0002	0.14660 0.0364	0.13069 0.0624	0.15718 0.0248
C8SB6B Leg Hair - no miss	0.10042 0.1530	0.18851 0.0069	0.21284 0.0022	0.28764 <.0001	0.25442 0.0002	1.00000	0.16594 0.0177	0.22797 0.0010	0.29088 <.0001
C8SB7B Shaving - no miss	-0.03724 0.5970	0.11261 0.1088	0.03924 0.5774	0.16025 0.0220	0.14660 0.0364	0.16594 0.0177	1.00000	0.19182 0.0060	0.17233 0.0137
C8SB8B Voice lower? - no miss	0.12745 0.0693	0.10094 0.1509	0.24895 0.0003	0.47596 <.0001	0.13069 0.0624	0.22797 0.0010	0.19182 0.0060	1.00000	0.29012 <.0001
C8SB9B Development compared - other boys - no miss	0.17408 0.0128	0.20946 0.0026	0.21806 0.0017	0.29970 <.0001	0.15718 0.0248	0.29088 <.0001	0.17233 0.0137	0.29012 <.0001	1.00000

Recent Growth Subscales Report Sample for Females Year 8

Pearson Correlation Coefficients Prob > r under H0: Rho=0 Number of Observations				
	RGR8PB1	RGR8PB2	RGR8PB3	RGR8PB4
RGR8PB1 Puberty Scale Standardized - no miss Y8	1.00000 171	0.97006 <.0001 170	0.99398 <.0001 171	0.97606 <.0001 170
RGR8PB2 Puberty Scale Standardized - w/miss Y8	0.97006 <.0001 170	1.00000 170	0.96448 <.0001 170	0.97631 <.0001 170
RGR8PB3 Puberty Scale - no miss Y8	0.99398 <.0001 171	0.96448 <.0001 170	1.00000 171	0.98612 <.0001 170
RGR8PB4 Puberty Scale - w/miss Y8	0.97606 <.0001 170	0.97631 <.0001 170	0.98612 <.0001 170	1.00000 170

Recent Growth Subscales Report Sample for Males Year 8

Pearson Correlation Coefficients Prob > r under H0: Rho=0 Number of Observations				
	RGR8PB1	RGR8PB2	RGR8PB3	RGR8PB4
RGR8PB1 Puberty Scale Standardized - no miss Y8	1.00000 204	0.96623 <.0001 202	0.99785 <.0001 204	0.98305 <.0001 202
RGR8PB2 Puberty Scale Standardized - w/miss Y8	0.96623 <.0001 202	1.00000 202	0.95860 <.0001 202	0.98716 <.0001 202
RGR8PB3 Puberty Scale - no miss Y8	0.99785 <.0001 204	0.95860 <.0001 202	1.00000 204	0.98171 <.0001 202
RGR8PB4 Puberty Scale - w/miss Y8	0.98305 <.0001 202	0.98716 <.0001 202	0.98171 <.0001 202	1.00000 202