Health Stability and Change: A Study of Urban Black Youth

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Abstract: Personal interviews were conducted with a representative sample of 536 urban Black youth at two points in their life cycle: first when they were adolescents, aged 12–17, and six to eight years later when they were young adults, aged 18–23. A total of 47 health problems for males, 48 for females, were inquired about each time. Longitudinal analysis was performed to determine the extent of change, the direction of change, and the health problems most subject to change. The number of health problems increased for both sexes, but the increase was significantly greater among males than females. Male and female morbidity count, thus, became nearly equivalent in young adulthood whereas, in adolescence, young women's had exceeded men's. More detailed age analysis revealed that the greatest increase in male's health problems occurred two years behind that for women: for men, between ages 17 and 18; for women between ages 15 and 16. With but few exceptions, the same health problems which dominated in adolescence continued to be most prevalent in young adulthood. Population prevalence rates, however, understate the considerable degree of shift or turnover in individual cases reporting health problems as well as in general health status as measured by the total number of those problems. (*Am J Public Health* 70:504–513, 1980.)

Introduction

Awareness and concern about the health of adolescents surged in the mid-1960s, coinciding with the so-called "teenage bulge"—legacy of the post-war baby boom. The corresponding increase in adolescents' socially disturbing behaviors—drug taking, dropping out of school, running away from home, homicide, suicide, and ever younger teenage pregnancy and childbearing—was an important contributor to the shift in attention to adolescents. Furthermore, these behaviors began to cross socioeconomic and ethnic boundaries which earlier had, for the most part, contained them. And, with regard to health and illness as it is more traditionally defined, adolescents often have been accused of being hypochrondriachal, of excessive preoccupation with physical symptoms—understandable as a response to their rapid physical change.

Consider further that little population representative information had been collected at that time concerning "normal" health changes that accompany the life course transition. "Normal," as used here, refers to what can be expected to happen within a population or subpopulation group—as opposed, for example, to "clinical" samples of particular individuals who have particular health problems. This kind of information can become available only when "healthy," i.e., population representative samples, are followed over time into successive stages of the life cycle. How, for example, do adolescent health problems look from the vantage point of the life stage just past adolescence?

Considerations such as these led to the systematic investigation of self-perceived adolescent health problems—their persistence and change over time—which are the subject of this report. It is part of a larger study which is examining the effects of a particular behavior, nonmedical drug use, on the "normal" transition of health between adolescence and young adulthood. Before that question can be posed, however, there is the prior question of what is the expected or "normal" change in health at this point in the life cycle for this particular generational unit of urban Black youth born in the mid-1950s.

The report which follows charts the progress of health, as measured by self-reported morbidity, over the youth trajectory from adolescence to early adulthood. Put simply, the questions addressed in this research on health stability and change are: 1) Is the group healthier or less healthy as young adults than they were as adolescents?; 2) Regardless of net population change, is there continuity or instability in individual health problems and in individuals' health levels from the one life stage to the other?

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Materials and Methods

Study Sample

Between 1968-1970, with financing from the U.S. Department of Health, Education, and Welfare's Children's Bureau (subsequently reorganized into the Office of Maternal and Child Health), a comprehensive study was conducted of health among a community representative sample of urban Black adolescents, aged 12-17 years, inclusive. At that time, the study group comprised all age appropriate adolescents drawn from an area probability sample of housing units in one inner city health district—Central Harlem in New York City. A broad array of data was collected concerning bio-psycho-social aspects of health.* Funding for a follow-up study, including the same health questions, was secured in the mid-1970's from the National Institute on Drug Abuse, DHEW.

Ninety-four per cent of the original sample of 668 non-Hispanic urban Black adolescents were located again six to eight years after the initial study, and personal reinterviews were completed in 1975-76 with 80 per cent of the entire initial study group (N = 536). This represented 89 per cent of those who were still alive and not residing outside the metropolitan New York City area to which the restudy was limited. Males (277) and females (259) were reinterviewed in nearly similar proportions (Table 1).

As before, interviews were conducted by specially trained, ethnically and gender matched interviewers in respondents' homes. Analysis indicates that the reinterviewed sample is representative of the universe of inner city non-Hispanic Black youth from which it was drawn. As in other sample surveys, findings can not be generalized to populations other than that from which the sample was drawn until and unless they are replicated on samples of those other populations.

TABLE 1—Reinterview Field Completions: Follow-Up Study of Harlem Youth[1] 6-8 Years Later

Total Sample Listed for Location and Reinterview	Total (N = 668) %		Male (N = 351) %		Female (N = 317) %	
Reinterview Completed[2]	80	(536)	79	(277)	82	(259)
Deceased	2	(11)	3	(9)	1	(2)
Out of Metropolitan N.Y. Area						
Address Known[3]	6	(44)	8	(29)	5	(15)
No Known Address	2	(12)	1	(5)	2	(7)
Not Located	6	(39)	6	(19)	6	(20)
Nomadic[4]	2	(11)	2	(8)	1	(3)
Refused	2	(15)	1	(4)	3	(11)
Total Sample Available for Reinterview (Dead and out of area subtracted from base total)	**(N = 601) %**		**(N = 308) %**		**(N = 293) %**	
Reinterview Completed	89	(536)	90	(277)	88	(259)
Not Located	7	(39)	6	(19)	7	(20)
Nomadic[4]	2	(11)	3	(8)	1	(3)
Refused	2	(15)	1	(4)	4	(11)

[1]Limited to Black youth not from Hispanic backgrounds.

[2]Sixty three per cent of the reinterviewed were still living in Central Harlem.

[3]Out of the metropolitan area includes 18 currently in the Armed Forces.

[4]"Nomadic" refers to a group who eluded interview even though direct contact was established with the family. The family relayed study messages to respondent. Only two persons in this group actually lived at the family address but were never at home despite repeated callbacks; the remaining nine had no address known to their families where they could be contacted.

Conceptions and Measures of Health

Aside from mortality, the longest used indicator of health status has been morbidity. While growing numbers of social scientists are stressing functional health measures, morbidity continues to have an important place in the arsenal of health indicators for planning health services, for studying the relationship between particular problems and functional impairment, etc. Furthermore, self-perceived and self-experienced symptoms of morbidity are important indicators separate from and complementary to the more usual medical and professional diagnoses of disease and/or its absence.[2, 8, 9]

With these considerations in mind, self-reported morbidity is the health indicator used here, as the basis for both a global measure of health status (the number of health problems reported) and to track specific health problems over time. A total of 47 health conditions for males and 48 for females,** mostly chronic in nature, were inquired about in interview. Similar health items and the same number of items were included at both times of study.*** The distributions obtained in young adulthood were compared to those obtained in adolescence. In addition, the individual reports at the two times were cross tabulated against each other to measure "stability and change." These shift or turnover rates can, and often will, be greater than what comparison of frequencies at the two times reveals, because they include

*General procedures in and findings from this research have been published [1] as well as in-depth analyses of health status, specific health problems and health behaviors.[2-7]

**Menstrual difficulty was added for females.

***Forty-five of the 47 conditions were the same on both interviews. Most were current conditions inquired about in terms of the past year. Two conditions—bed wetting and meningitis—were listed on initial interview, not in follow-up. Two other conditions—high and low blood pressure—were included in the second interview, but not in the first. A miscellaneous category also was used each time.

At time of initial study, the number of reported health problems provided a means by which to estimate the correlation between self reported and physician observed health. This proved to be modest, though statistically significant, and demonstrates the empirical basis for viewing the relationship between self reported and physician observed health as complementary: Pearson r for total sample = .23; for males = .22; for females = .16.

TABLE 2—Morbidity: Number of Self-Reported Health Problems as Adolescents and as Adults

Number of Health Problems	Total Sample		Males		Females	
	Adolescents 12-17 yrs (536) %	Young Adults 18-23 yrs (536) %	Adolescents 12-17 yrs (277) %	Young Adults 18-23 yrs (277) %	Adolescents 12-17 yrs (259) %	Young Adults 18-23 yrs (259) %
0-2	38	26	52	28	23	24
3-5	36	34	31	34	41	34
6 or more	26	40	17	38	36	42
$\bar{X}$	4.43	5.70	3.33	5.36	5.60*	6.07*
S.D.	3.85	4.30	3.14	4.03	4.18	4.54
(t)	(6.43, 535df, $p < .001$)		(7.65, 276df, $p < .001$)		(1.75, 258df, $.10 < p < .05$)	
Range	0-21	0-24	0-21	0-21	0-21	0-24

*Because of the high prevalence of a menstrual problem in adolescence and its subsequent decline, measures of central tendency were computed for females omitting this problem:

	Adolescents	Young Adults
$\bar{X}$	4.82	5.77
S.D.	4.98	4.55
(t)	(2.26, 536df, $p < .05$)	

changes that take place in both directions which may be canceled out in simple prevalence comparisons.‡

Results

General Health Status

The sample reported a greater number of health problems as young adults than they had as adolescents: a mean of 5.70 compared to mean of 4.43, respectively. Both males and females reported a greater number of problems than they had in adolescence, but the increase among males was considerably larger (mean number of 5.36 compared to 3.33 in adolescence) than females (6.07 compared to 5.60 in adolescence), as shown in Table 2.‡‡ Thus by young adulthood, the two sexes had achieved near parity, compared to their quite discrepant positions in adolescence (see Figure 1).‡‡‡

Analysis of change patterns confirmed the greater health decline among males than females. When shift patterns were analyzed excluding female menstrual problems at both times, the difference between men and women became

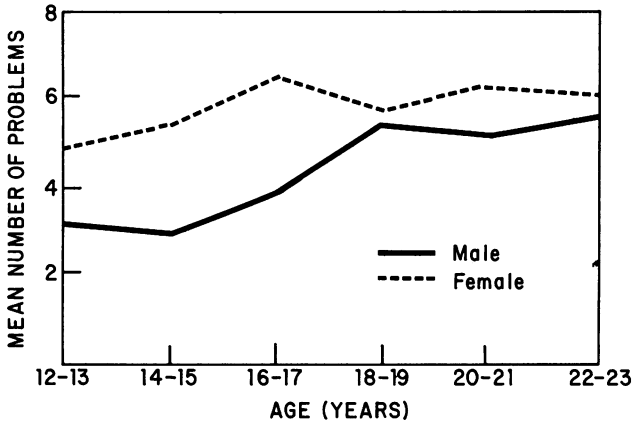

FIGURE 1*—Trends in Morbidity by Age and Sex (Mean Number of Self-Reported Health Problems)

***Age points are based on the following frequencies:**

Age	*M*	*F*	*Age*	*M*	*F*
12–13	117	92	18–19	69	51
14–15	94	76	20–21	124	109
16–17	66	90	22–23	84	98

‡Since data collected in this study are subject to chance sampling variation, the following table offers guidelines for estimating when differences are large enough to satisfy the $p < .05$ confidence level (two standard errors), indicating that a difference that large would arise by chance in no more than five samplings out of 100. Note that these estimates of standard error have been calculated using a multiplier of $\sqrt{2}$ or 1.4, as recommended by Davis,[10] to adjust for clustering in the area probability sample of households.

For across time comparisons of:	When observed percentages are: 50%	20%	10%	5%
Total Sample (N = 536)	±8	±7	±5	±4
Males (N = 277)	±12	±10	±7	±5
Females (N = 259)	±12	±10	±7	±5

‡‡As will be seen later, menstrual difficulties showed the largest decline between adolescence and young adulthood of any problem. Some part of the vastly higher adolescent prevalence may have been a function of the different and more detailed questioning about this particular problem in the adolescent interview. To make sure that the interpretation regarding female increase in morbidity was correct, the mean number of female health problems was computed also without menstrual difficulties: $\bar{X} = 5.77$ (S.D. 4.55) in young adulthood compared to $\bar{X} = 4.82$ (S.D. 4.98) in adolescence, $p < .05$. Thus, eliminating menstrual problems from both counts brought the difference to an average of one symptom, which was half the mean male increase.

‡‡‡Figure 1 has been plotted in two-year age intervals, in order to provide larger samples and therefore more reliable estimates than would be available if using single years of age.

TABLE 3—Stability and Change* (Individuals Compared Over Time)

Stability/change	All (536) %	Male (277) %	Female (259) %
Remained healthy (few problems at both times)	34	28	41
Health worse (few as adolescents, many as young adults)	30	38	21
Health better (many as adolescents, few as young adults)	12	9	15
Remained sick (many problems at both times)	24	25	23
		$(X^2_{MF} = 23.454, 3df, p < .001)$	

*Initial sex differences in average number of problems required different cutting points for healthy and sick: three problems for men, five for women. In this Table, therefore, for males, "few" problems refers to three or less, many to four or more; for females, few refers to five or less, many to six or more. Because of initial high prevalence of menstrual problems among adolescent females and subsequent large decline when they were young adults, sex specific health change was also tested excluding menstrual problems.

	All (536) %	Male (277) %	Female (259) %
Remained healthy	37	28	47
Health worse	30	38	21
Health better	10	9	12
Remained sick	23	25	20
		$X^2 = 28.040, 3df, p < .001$	

slightly stronger, but still at the $p < .001$ level (Table 3).

General instability in health status and greater change among males than females also is reflected in correlation coefficients (Pearson) of the number of health problems reported at the two times: total sample, $r = .30$; males, $r = .21$; females, $r = .35$.

Ages of Health Decline

The form of the sex specific distributions of number of health problems at the two study times was further analyzed to see if the apparently greater change reflected in the mean or average number of problems among males might be an artifact produced by change at the extreme of the range (Figures 2 & 3). This proved not to be the case. For females, what was observed were very similarly shaped curves at the two study times, with reduced frequency—in young adulthood—at the low end of the distribution and a slight increase throughout the remainder. What was observed for males, interestingly, was a substantial lowering of the adolescent curve's peak at 1-2 health problems and the addition of another, almost equivalent, peak in frequency at 5-6 problems in young adulthood. In other words, males showed a bimodal distribution at time of restudy, unlike their original distribution on frequency of health problems and unlike females at either time.

The next hypothesis to test was whether the difference might be accounted for by earlier "maturation" among females than males. Since girls had exceeded boys in number of health problems at initial study, were males now catching up because of a difference in the time schedule or calendar when their morbidity increased (Table 4)? Indeed, this proved to be the case. Analysis of two-year changes in re-

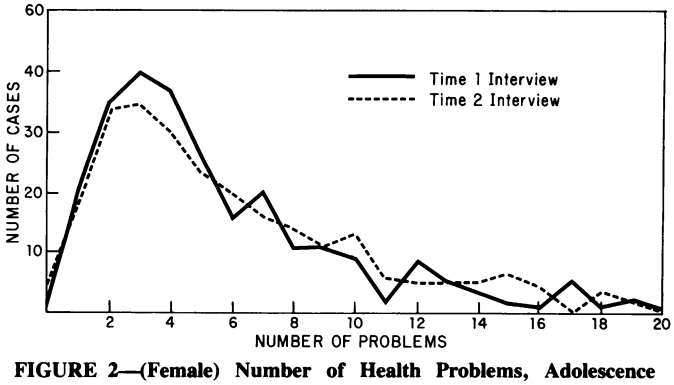

FIGURE 2—(Female) Number of Health Problems, Adolescence (Time 1) and Young Adulthood (Time 2)

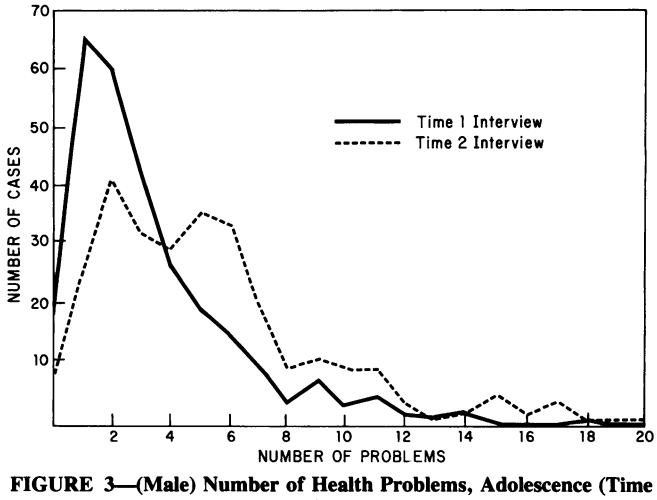

FIGURE 3—(Male) Number of Health Problems, Adolescence (Time 1) and Young Adulthood (Time 2)

TABLE 4—Male and Female Mean Number of Self-Reported Health Problems (by Two-Year Age Groupings, Adolescence through Early Adulthood)

	Male			Female		
Age (yrs)	$\bar{X}$	S.D.	(N)	$\bar{X}$	S.D.	(N)
12-13	3.25	2.54	(117)	4.95	3.71	(92)
14-15	3.01	3.05	(94)	5.40	4.33	(75)
16-17	3.95	4.12	(66)	6.44	4.48	(90)
18-19	5.49	3.61	(69)	5.76	4.37	(51)
20-21	5.27	4.44	(124)	6.38	4.39	(109)
22-23	5.60	3.79	(84)	6.11	5.08	(98)

ported number of health problems for the ages 12-23, inclusive, showed that the largest increment occurred for females between the ages 14-15 and 16-17 (from a mean number of problems of 5.40 to 6.44). For males, the largest increment occurred two years later (and exactly at the dividing point of the adolescent and young adult age spans in this research): between ages 16-17 when the number of problems averaged 3.95 and ages 18-19 when it increased to 5.49.

Trends in Prevalence of Specific Health Problems*

The frequency of report and rank order of prevalence of specific self-reported problems in young adulthood were compared to their standing in adolescence (Table 5). Major changes are summarized in Table 6.

Problems with teeth and gums increased in prevalence, and remained the single most frequently reported problem in early adulthood. In addition, indigestion, musculoskeletal difficulties (pains or difficulty moving limbs and/or back), gonorrhea, skin problems, shortness of breath, headaches, a nervous-emotional problem, hay fever or other allergy, sinus trouble, anemia—all of these increased noticeably in early adulthood, even though some of them have frequently been identified as "adolescent" problems. There were few declines, menstrual difficulties by far the largest. Reports of underweight, vision,** hearing, nose bleeds, and speech problems declined slightly. Chronic symptoms whose reported prevalence was more or less stable at the two time periods included: overweight, frequent colds, stomach pains, chronic cough-bronchitis, vomiting, asthma-wheezing, earaches, heart condition, hernia, blood in bowel movement, blood in urine. Overall, one is struck more by the general increase in prevalence than by marked changes in rank ordered prevalence of particular conditions between the two time periods.

Some Sex Differences in Prevalence of Particular Health Problems

As in adolescence, males and females differed in the nature of their nutrition problems as young adults. The problem reported second most frequently by males was being underweight (29 per cent); among young adult females it was overweight (40 per cent). Headaches ranked third among females (35 per cent) and seventh among males (19 per cent). Headaches and anemia showed a greater prevalence increase among females than males. Females remained ahead of males in their self-reported rates of a nervous-emotional problem, stomach pains, vomiting, dizziness and fainting—although male report also increased on this latter complaint. Males increased more than females in their reports of gonorrhea, syphilis, and a serious accident or injury. Male speech problem rate remained constant although it declined among females.

Shift or Turnover in Particular Health Problems

Mention was made earlier in this paper that prevalence rates may disguise true amounts of turnover, i.e., individual shifts from having to not having a particular problem and vice versa. Table 7 identifies the proportion of adolescents who had the problem but no longer do so (recovered cases), and of young adults reporting the problem now but not as adolescents. The higher the proportion on either or both of these measures, the greater the instability or turnover in cases with that problem. Many of the specific problem reports are too small to analyze controlling sex across time. No attempt can be made, therefore, to distinguish and/or compare males and females on their relative shift regarding particular health problems. This can be estimated, to some extent, when a particular problem had a noticeably higher prevalence among either sex.

The most striking finding in Table 7 is the extent of instability, the shift in the individual cases who comprise the sample proportions reporting the condition at each study

*A methodological caveat is in order. Health problems were formulated on interview chiefly as symptoms to which the young person could respond. As much as possible, disease entities were not used in order to avoid report bias resulting from differences in physician care. Certain conditions, however, could not be formulated in other than medical or diagnostic terms. High blood pressure, or hypertension, is such a case. As is seen in Table 5, three times as many female young adults (19 per cent) as male (6 per cent) reported this condition. Accordingly, reports for the small number of such conditions may understate true prevalence and also not provide valid estimates of sex differences or change over time. It is interesting to note in this connection that the very conditions that create higher female utilization rates—pregnancy and childbearing—thereby give them better access to medical diagnosis and screening.

National results for 17-24 year olds in 1974 [11] concerning hypertension, obtained by the question: "Did a doctor ever tell you that you had hypertension?", showed the following per cent prevalence which also probably reflects this bias:

	M	*F*	*All*
Black	4.6	9.4	7.2
White	6.1	7.9	7.0
Total	5.9	8.0	7.0

**Initially, the question was asked in terms of "seeing the blackboard", a situation no longer salient since but 31 per cent of the sample were attending school either full- or part-time when reinterviewed.

TABLE 5—Prevalence of Health Problems (in Rank Order) Reported in Early Adulthood Compared to Adolescence

	Total				Male				Female			
	18-23 yrs (536)		12-17 yrs (536)		18-23 yrs (277)		12-17 yrs (277)		18-23 yrs (259)		12-17 yrs (259)	
Problem	%	(Rank)	%	(Rank)	%	(Rank)	%	(Rank)	%	(Rank)	%	(Rank)
Teeth & Gums	44	(1)	32	(1)	45	(1)	31	(1)	42	(1)	34	(2.5)
Skin Problems	30	(2)	18	(7.5)	27	(3)	10	(13)	32	(4)	25	(7)
Overweight	28	(3.5)	28	(3)	17	(13)	22	(3)	40	(2)	34	(2.5)
Musculoskeletal Problems	28	(3.5)	14	(11)	26	(4)	10	(13)	29	(7)	18	(12)
Repeated Headaches	27	(5)	19	(6)	19	(7.5)	17	(5.5)	35	(3)	21	(10)
Menstrual									30	(6)	89	(1)
Nervous or Emotional Problems	26	(6)	18	(7.5)	22	(5)	15	(7)	31	(5)	22	(8.5)
Underweight	25	(7)	30	(2)	29	(2)	30	(2)	21	(10)	26	(5.5)
Frequent Colds	24	(8)	22	(5)	21	(6)	17	(5.5)	26	(8)	26	(5.5)
Trouble Seeing	20	(9)	24	(4)	19	(7.5)	19	(4)	20	(12)	29	(4)
Shortness of Breath	19	(10)	9	(19)	17	(13)	7	(20)	21	(10)	11	(20.5)
Indigestion	18	(11.5)	4	(29)	18	(10)	3	(28)	19	(14.5)	5	(31)
Chest Pains	18	(11.5)	12	(13.5)	17	(13)	10	(13)	19	(14.5)	14	(14)
Stomach Pains	17	(13)	17	(9)	14	(18)	13	(8.5)	21	(10)	22	(8.5)
Repeated Sinus Trouble	16	(14.5)	9	(19)	16	(15)	6	(21.5)	17	(19)	12	(17.5)
Repeated Sore Throats	16	(14.5)	13	(12)	15	(16)	8	(17.5)	17	(19)	18	(11)
Hay Fever or Other Allergy	15	(16)	9	(19)	14	(18)	8	(17.5)	17	(19)	10	(23)
Dizziness, Fainting	13	(18)	8	(22.5)	9	(23)	5	(24)	18	(17)	11	(20.5)
Gonorrhea‡	13	(18)	1	(38.5)	18	(10)	1	(36)	6	(29.5)	1	(37.5)
Serious Accident or Injury	13	(18)	9	(19)	18	(10)	8	(17.5)	8	(27)	11	(20.5)
High Blood Pressure‡	12	(20)*	Not Asked		6	(28.5)*	Not Asked		19	(14.5)*	Not Asked	
Anemia	11	(21.5)	4	(29)	4	(36)	1	(36)	19	(14.5)	8	(24.5)
Shaking or Trembling	11	(21.5)	8	(22.5)	10	(21)	5	(24)	12	(22)	12	(17.5)
Speech Problems	10	(24)	15	(10)	14	(18)	13	(8.5)	6	(29.5)	16	(13)
Chronic Cough, Bronchitis	10	(24)	12	(13.5)	10	(21)	11	(11)	10	(24)	13	(15.5)
Vomiting	10	(24)	11	(15)	7	(25)	8	(17.5)	14	(21)	13	(15.5)
Asthma, Wheezing	9	(26.5)	10	(16)	8	(24)	9	(15)	10	(24)	11	(20.5)
Heart Thumping Hard	9	(26.5)	5	(26.5)	10	(21)	4	(26.5)	9	(26)	7	(27)
Frequent Constipation	8	(28)	5	(26.5)	6	(28.5)	4	(26.5)	10	(24)	6	(29.5)
Frequent Earaches	6	(29)	6	(25)	6	(28.5)	5	(24)	5	(31.5)	7	(27)
Heart Condition	5	(31)	4	(29)	6	(28.5)	2	(31)	4	(34)	7	(27)
Painful or Frequent Urination	5	(31)	3	(31.5)	4	(36)	2	(31)	7	(28)	3	(33)
Trouble Hearing	5	(31)	7	(24)	6	(28.5)	6	(21.5)	4	(34)	8	(24.5)
Tuberculosis	4	(34.5)	1	(38.5)	2	(39.5)	**	(42)	5	(31.5)	1	(37.5)
Repeated Nosebleeds	4	(34.5)	9	(19)	5	(32.5)	12	(10)	3	(36.5)	6	(29.5)
Frequent Diarrhea	4	(34.5)	2	(33.5)	5	(32.5)	2	(31)	2	(39.5)	2	(34)
Syphilis‡	4	(34.5)	**	(43.5)	6	(28.5)	1	(36)	**	(45.5)	—	(44.5)
Hernia, Swelling in Groin	3	(37.5)	2	(33.5)	4	(36)	3	(30.5)	2	(39.5)	1	(37.5)
Low Blood Pressure‡	3	(37.5)*	Not Asked		1	(43)*	Not Asked		4	(34)*	Not Asked	
Jaundice, Hepatitis‡	2	(40.5)	1	(38.5)	4	(36)	1	(36)	**	(45.5)	**	(42)
Epilepsy, Convulsions, Fits‡	2	(40.5)	**	(43.5)	4	(36)	**	(42)	1	(43)	—	(44.5)
Blood in Bowel Movement	2	(40.5)	3	(31.5)	1	(43)	1	(36)	3	(36.5)	4	(32)
Rheumatic Fever‡	2	(40.5)	1	(38.5)	2	(39.5)	**	(42)	1	(43)	1	(37.5)
Stomach Ulcer	1	(44)	—	(45)	1	(43)	—	(45)	2	(39.5)	—	(44.5)
Diabetes‡	1	(44)	1	(38.5)	1	(43)	1	(36)	2	(39.5)	1	(37.5)
Blood in Urine	1	(44)	1	(38.5)	1	(43)	**	(42)	1	(43)	1	(37.5)
Polio‡	**	(46)	1	(38.5)	**	(46)	1	(36)	—	(47.5)	—	(44.5)
Worms or Parasites	—	(47)	1	(38.5)	—	(47)	**	(42)	—	(47.5)	1	(37.5)

Note: The arithmetic average has been assigned in cases of tied ranks.
*Asked in reinterview only. Not asked of adolescents. Early adult rank approximated.
‡Asked as: "Have you ever had . . .?" All other conditions inquired about as: "During the past year, have you had . . .?"
**Less than half of one per cent.
— = no cases

TABLE 6—Health Conditions Reported by Young Adults Showing Significant* Increase and Decrease from Adolescence

	Young Adult Prevalence					
	Male		Female		Total	
Increase	% Prevalence	% Change	% Prevalence	% Change	% Prevalence	% Change
Indigestion	18	+15	19	+14	18	+14
Musculo-skeletal Problems	26	+16	29	+11	28	+14
Gonorrhea	18	+17	6	+ 5	13	+12
Skin problems	27	+17	32	+ 7	30	+12
Teeth and Gums	45	+14	42	+ 8	44	+12
Shortness of Breath	17	+10	21	+10	19	+10
Nervous or Emotional	22	+ 7	31	+ 9	26	+ 8
Repeated Headaches	19	+ 2	35	+14	27	+ 8
Repeated Sinus Trouble	16	+10	17	+ 5	16	+ 7
Anemia	4	+ 3	19	+11	11	+ 7
Hay fever or other Allergy	14	+ 6	17	+ 7	15	+ 6
Accident, Injury	18	+10	8	− 3	13	+ 4
Heart Thumping	10	+ 6	9	+ 2	9	+ 4
Syphilis	6	+ 5	**	**	4	+ 4
Decrease						
Menstrual	—	—	30	−59	—	—
Repeated Nose Bleeds	5	− 7	3	− 3	4	− 5
Speech Problems	14	+ 1	6	−10	10	− 5

*Statistically reliable; difference exceeds .05 confidence limits of sampling error.
**Prevalence less than 0.5%.

time.*** Hardly any conditions showed less than a 50 per cent recovery rate among the adolescents who reported the condition. Using the 50 per cent benchmark, dental problems, weight problems, and hay fever or other allergy appear to be the more intractable problems. In addition, skin, asthma, and sinus trouble hovered right around the 50 per cent level.

What proportion of young adult problem prevalence is accounted for by cases which were already reported in adolescence? That information appears in the column headed "continued cases" in Table 7 ("continued cases" and "new cases" together comprise 100 per cent of young adult prevalence). Since the focus in this paper is on continuities and discontinuities in health between adolescence and young adulthood, "continued" cases will be examined next for health problems of adolescence more likely to be carried into young adulthood without a corresponding increase of new cases at that time.

The most notable example is menstrual difficulties. This was the problem that showed the sharpest decline in female sample prevalence. The recovery rate shown in Table 7 was considerable but not exceptionally high. What accounted for the drop was the high stability identified by "continued cases" with relative absence of "new" cases developing after adolescence.

Other conditions where "continued cases" made up a substantial proportion (40 per cent or more) of young adult prevalence were: weight (under and over), asthma, tooth and/or gum problems, vision and hearing problems.

Discussion

This paper has been concerned with change in self-experienced and self-reported health problems from adolescence to young adulthood in a representative sample of urban Black youth. Findings were used to address questions about the extent to which health, measured in this way, changes between these two points in the life cycle and the direction of this change.

The results of comparing reports regarding 47 health problems for males and 48 for females at the two study times, in brief summary, were:

- Overall, the findings were not congruent with a view of adolescents as "hypochondriacal" or evidencing exaggerated concern about their body symptoms.
- Reports of symptoms and health problems increased significantly in young adulthood over what they were in adolescence.
- The increase was even greater among males than females, constituting a near "catch up" in self-reported mor-

***Indeed, rates of shift are so high that the phenomenon itself merits special study as a methodological issue, to see what respondent characteristics are correlated, whether interviewer differences account for any of the variance, etc.

TABLE 7—Change in Past Year Problem Prevalence Adolescence to Young Adulthood (N = 536)*

Problem	Adolescents Recovered Cases %	Adolescents Recovered Cases (Base N)**	Young Adults New Cases Percentaged on Total Sample (536) %	Young Adults New Cases Percentaged on Those with Problem %	Young Adults New Cases Percentaged on Those with Problem (Base N)***	Young Adults Continued Cases *** %
Teeth & Gums	44	(172)	25	58	(232)	42
Skin Problems	49	(91)	20	69	(150)	31
Overweight	43	(147)	12	44	(150)	56
Musculoskeletal Problems	61	(74)	23	81	(149)	19
Repeated Headaches	57	(101)	18	69	(142)	31
Menstrual	69	(201)	1‡	4	(65)	96
Nervous or Emotional Problems	57	(96)	19	71	(141)	29
Underweight	49	(150)	10	42	(131)	58
Frequent Colds	61	(113)	15	64	(123)	36
Trouble Seeing	65	(126)	11	57	(102)	43
Shortness of Breath	63	(48)	16	82	(101)	18
Indigestion	59	(23)	17	91	(100)	9
Chest Pains	76	(66)	15	83	(95)	17
Stomach Pains	68	(91)	12	68	(90)	32
Repeated Sinus Trouble	49	(46)	12	72	(85)	28
Repeated Sore Throats	63	(70)	11	68	(82)	32
Hay Fever or Other Allergy	36	(47)	9	61	(78)	39
Dizziness, Fainting	71	(43)	11	82	(70)	18
Serious Accident or Injury	79	(46)	11	85	(68)	15
Shaking or Trembling	75	(44)	9	81	(58)	19
Speech Problems	75	(77)	7	64	(54)	36
Chronic Cough, Bronchitis	82	(62)	8	80	(55)	20
Vomiting	78	(57)	8	76	(54)	24
Asthma	52	(54)	4	47	(48)	53
Heart Thumping Hard	87	(27)	9	93	(49)	7
Frequent Constipation	84	(26)	7	90	(41)	10
Frequent Earaches	87	(32)	5	86	(30)	14
Heart Condition	90	(23)	5	91	(27)	9
Painful or Frequent Urination	91	(13)	5	94	(29)	6
Trouble Hearing	72	(36)	3	59	(25)	41
Repeated Nosebleeds	89	(47)	3	74	(20)	26
Frequent Diarrhea	93	(12)	3	95	(18)	5
Hernia, Swelling in Groin	92	(10)	3	95	(17)	5
Blood in Bowel Movement	100	(14)	2	100	(12)	−1
Stomach Ulcer	—	(0)	1	100	(3)	−1
Blood in Urine	100	(3)	1	100	(6)	−1
Worms or Parasites	100	(4)	—	—	—	—

*"Recovered" refers to conditions reported in adolescence but not young adulthood; "New Cases" to those reported in young adulthood, not in adolescence; "Continued" are those reported at both times.
**Percentage base of cases reported in adolescence.
***Percentage base of cases reported in adulthood.
— = no cases.
‡Based on total females = 259.

bidity (chronic symptoms and conditions, for the most part) on the part of young Black males relative to females.

• The near catch-up with female morbidity and large increase in male reported problems appeared to be a function of differently timed health deterioration—as measured by when the greatest increase occurred in reported number of problems: for females it was between ages 15 and 16 when the single year mean moved from 4.7 to 6.5 health problems; for males it was between ages 17 and 18, when the single year mean number of problems shifted from 3.7 to 6.0.

• As to change in prevalence of particular health problems, most conditions showed increased prevalence. The health problems reported most frequently in early adulthood were dental, skin, weight, musculo-skeletal, repeated headaches, nervous-emotional, and frequent colds—reported by approximately one-fourth or more of this sample. Thus, most of what have been identified as adolescent health problems were seen to continue to predominate in the early adult years.

• Problems showing the greatest increase in prevalence

in early adulthood relative to their reports in adolescence were digestive problems, musculo-skeletal problems, gonorrhea, skin problems, dental problems, and shortness of breath. Only a few problems showed a decrease; most notable was the decrease in females' reports of menstrual difficulties.

• Analysis of shift in individual cases reporting particular health problems in adolescence but not in early childhood, and vice versa, indicates pervasive instability, i.e., large turnover in the individual cases comprising the prevalence counts. Dental problems, weight problems, hay fever and other allergy, menstrual problems, and asthma were the most stable of the chronic conditions inquired about, in terms of continuity among individual cases. Vision and hearing difficulties are also implicated as problems of adolescence continuing into young adulthood.

Data to compare to the findings reported here, which might have been used as a basis for formulating hypotheses about expected kinds and degree of change between adolescence and young adulthood, are limited indeed. Starfield[12] reviewed longitudinal studies, including a sub-sample in the U.S. Health Examination Survey which was followed from Cycle 2 (childhood) to Cycle 3 (adolescence). These findings also point up unexpected degrees of instability and change in health status over time.

A gender difference in the timing of "health decline" (increased health problems) is in accord with a general two-year developmental lag of males behind females. The conclusion should not be reached, however, that these data reflect differences in biological maturation only. The health model employed in this research is a bio-psycho-social one which posits that psychological factors (perceptual, cognitive, and affective), along with social situation interact with biological factors to produce the phenomenon labeled "health."[2, 13, 14]

The research, of which the findings reported here are a part, is testing a series of social situational (e.g., education-occupational, achievement, living conditions), interpersonal, and psychosocial (self attitudes and expectations of life) variables in relation to demoralization (so-called affective disturbances of mood, anxiety and self esteem) and physical symptoms. These are being tested longitudinally (i.e., across the two life stages of adolescence and young adulthood) in relation to drug use and its effects on health. Not only are differently timed effects of illicit substances appearing for men and women, but different kinds and degrees of stability in and influence from role achievement and psychosocial attributes appear related to measures of health.

The implications for the timing of "health decline" reported here are that these are not phenomena of physical development alone. They will need to be viewed also in the context of differently timed social and psychosocial experiences which are interacting with different calendars of biological development and maturation to produce the observed changes and gender differences in timing.

The timing of male health change coincided with different data collection periods. Morbidity or its report could have increased among males of all ages (historic effect), and account for change. However, this seems unlikely and would not explain the observed gender differences.

Furthermore, a breakdown of the 47 male physical symptoms (48 for females) into two different components shows that prevalence did not increase uniformly. The health problems were subdivided into those which are generally classified as "psychosomatic" or "psychophysical" and a residual group of physical symptoms.‡ Men and women showed similar mean increases on psychophysical symptoms, an average increase of two-thirds of a symptom. It was in the larger category of residual physical symptoms where males increased an average of one symptom and females actually declined by one-half a problem. (Over time Pearson correlation coefficients for physical problems were: male .20, female .39; psychophysical, male .24, female .19). This finding, too, suggests that the observed health change among young Black men reflected more than general social change in health awareness and/or reporting.

In conclusion, the young adult years have been little attended to or appreciated as a time of health decline. At a minimum, these findings point to the need for comparable longitudinal analyses of health status in other populations, to test whether the decline and its different calendars among young men and women apply also in other socioeconomic and other sociocultural groups. These findings based on self-reported health problems also need to be complemented with similar longitudinal research using clinical evaluations of "normal" populations in order to gain further insight into the high degree of instability in particular health problems.

A positive implication might be drawn from the observed instability and change in health, i.e., the prospect that interventions in adolescence can alter patterns of future health-interventions broadly conceived as bio-psycho-social ones.

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‡The nine-item psychophysical scale had Guttman lower-bound reliability of .74 (Males = .73, Females = .75) and included current problems: repeated headaches; nervous or emotional troubles; dizziness, fainting spells or blackouts; chest pains; shortness of breath even without exercise; heart thumping or racing; shaking or trembling; stomach pains; indigestion, acid in stomach.

The residual physical health scale consisted of 38 items for males, 39 for females, with Guttman lower-bound reliability of .64 (Males = .67, Females = .69) and included current problems with: seeing; menstrual period; speech; repeated nosebleeds; frequent colds; repeated sore throats; frequent earaches or discharge from ears; hearing; repeated sinus trouble; long-lasting cough or chronic bronchitis; asthma; wheezing; heart; skin; hay fever or other allergy; hernia, rupture or swelling in the groin; frequent constipation; frequent diarrhea; stomach ulcer; vomiting, feeling sick to your stomach; blood in bowel movement; worms or parasites; blood in urine; difficult, painful, frequent urinating; serious accident or injury which required staying away from usual activities for at least one day; musculo-skeletal (backaches and limb problems); teeth and gums; weight. Also included were any history of: diabetes; tuberculosis; anemia (thin blood); syphilis; gonorrhea; polio; high blood pressure; low blood pressure; jaundice, hepatitis; epilepsy, convulsions, fits or seizures; rheumatic fever.

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