

Original Article

Demographic shifts in health conditions of adolescents 10-19 years, Jamaica: using cross-sectional data for 2002 and 2007

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Background: It is well established in health literature that most adolescents have good health, but this does not mitigate the reality that there are some who are living with chronic and other health conditions. **Aims:** To examine the demographic shifts in health conditions and the typology of health conditions experienced by this age cohort. **Materials and Method:** The current study extracted a sample of 5,229 and 1,394 for adolescents 10-19 years from two surveys collected jointly by the Planning Institute of Jamaica and the Statistical Institute of Jamaica for 2002 and 2007 respectively. The survey was drawn using stratified random sampling. The sample was weighted to reflect the population of the nation. Descriptive statistics and chi-square were used in this study. The level of significance used in this research was 5% (i.e. 95% confidence interval). **Results:** In 2002, most of respondents had cold (28.3%) and in 2007, this shifted to unspecified health conditions (35.5%). The number of reported cases of arthritis in adolescents was 0.4%, in 2002, which fell by 100% in 2007 whereas increases were observed for unspecified conditions, 42%; hypertension, 175%; and diabetes mellitus, 700%. **Conclusions:** There is an immediate need for health promotion and education campaigns geared towards the sensitization of adolescents about the rise in chronic illness, its challenges, lifestyle practices and willingness to seek care if particular symptoms are presently affecting them. (Bourne PA. *North Am J Med Sci* 2009; 1: 125-133).

Keywords: Health, health status, health conditions, adolescents, demographic shifts in health conditions, public health, epidemiology.

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Introduction

Life expectancy and infant mortality are two of the indicators of the health status of a community, society, nation or population. This emphasizes the rationale behind extensive studies on those conditions, and a possible paucity of research on adolescents' health, except in the area of reproductive health. In Jamaica, the life expectancy at birth, for 2005-2010, is 69.75 years for males and 74.95 years for females [1], which is equally comparable to that of those peoples in developed countries [2]. On extensive review of health literature in Jamaica, many studies have examined infant or general mortality [3-7], sexual lifestyle and reproductive health in particular adolescents [8-13], and depression in adolescents [14-15] with an emphasis still on life expectancy. Adolescents denotes an individual who is 10 to 19 years, and a section of the young population who will be or seeking employment, attending school and by extension will form a critical part of the human development in the future. In 1991, the adolescent population comprised

of 22.2% of the total population and this fell to 19.7% in 2007 (Table 1), indicating that one-fifth of nation's population could be totally or partially dependent on family, relative or the state for survivability.

The issue of survivability constitutes more than socio-economic assistance to the health status of this group of people. Statistics from the Planning Institute of Jamaica and the Statistical Institute of Jamaica [16], for 2007, revealed that most adolescents reported no illness/injury in the 4-week period of the JSLC, 23.9% had a recurring illness, 53.7% of those who were ill sought medical care, suggesting that the health status of this cohort is relatively good. While this can be deduced from the statistics, there is no certainty to this deduction. Using mortality data for adolescents, in 1998, 1.86% of all mortality could be accounted for by male adolescents compared to 1.19 for female adolescents, and this figure increased by 29% for males and fell by 2.5% for female adolescents (Table 1).

Table 1 Adolescents Mortality and Live Birth by Sex (female < 20 yrs), 1998-2007.

Variable	Year						
	1999	2000	2001	2002	2003	2004	2005
Occurrence	20.8	204	20.2	20.0	19.4	19.3	18.7
Mortality							
Male	1.86	1.76	1.88	1.38	2.34	2.38	2.40
Female	1.18	1.17	1.19	1.61	1.11	1.15	1.16
Total	1.6	1.5	1.6	2.1	1.8	1.8	1.8

Source: Figures were computed by author from the Demographic Statistics for 2007. LB: live birth.

Table 2 Treatment for Gunshot wounds at the Accident and Emergency Depts. Of Public Hospitals by Gender and Age cohort (%): 1999-2002.

Age	Year							
	1999		2000		2001		2002	
	M	F	M	F	Male	F	M	F
< 5 y	0.8	1.3	0.2	3.1	0.2	0.0	0.0	0.0
5-9 y	0.3	3.0	0.7	1.9	0.3	1.1	0.3	0.6
10-19 y	17.9	24.5	16.2	18.5	10.2	17.0	13.9	17.0
20-29 y	39.0	32.5	40.5	30.2	35.8	19.4	36.6	35.2
30-44 y	30.6	23.6	31.1	11.1	32.3	26.9	29.3	32.1
45-64 y	6.6	12.2	6.7	28.4	10.7	22.3	8.9	11.3
65+ y	3.5	3.0	2.3	11.1	6.7	12.7	8.8	3.6
unknown	1.4	0.0	2.2	1.2	3.8	0.7	2.3	0.6
Total %	100	100	100	100	100	100	100	100

Calculated by the author from Annual Report, 2002 published by the Policy, Planning and Development Division, Ministry of Health, Jamaica. M: Male; F: Female

Table 3 Visitation to the Accident and Emergency Depts. Of Public Hospitals for attempted suicide by Gender and Age cohort (%): 2000-2002.

Age	Year					
	2000		2001		2002	
	M	F	M	F	Male	F
< 5 y	0.0	0.0	1.0	0.0	1.0	0.9
5-9 y	0.0	3.4	2.0	0.0	2.0	3.5
10-19 y	19.0	39.3	13.0	49.4	13.0	38.3
20-29 y	24.1	36.0	20.0	34.8	20.0	36.5
30-44 y	34.5	13.5	13.0	6.7	13.0	17.4
45-64 y	12.1	2.2	4.0	3.4	4.0	0.9
65+ y	6.9	3.4	4.0	2.2	4.0	0.0
unknown	3.4	2.2	0.0	3.4	1.7	2.6
Total %	100	100	100	100	100	100

Calculated by the author from Annual Report, 2002 published by the Policy, Planning and Development Division, Ministry of Health, Jamaica. M: Male; F: Female

In spite of the aforementioned disparity in mortality of the sexes for adolescents, the fact that 20% of all births occur to this cohort and on average 1.7% of all mortality is accounted for by this age cohort (Table 1), academics in Jamaica continue to be over indulgent in adolescents' reproductive health research. PAHO [17] however, noted that the health status of adolescents in Jamaica is good which concurs with PIOJ [18], and PIOJ and STATIN's publications [16] and like Jamaican scholars dedicated more time to reproductive health and in the sentence opined that 26% of all those who had injuries from violent acts were adolescents. Using gunshot wounds to examine injuries of adolescents, disaggregating the figures revealed that more adolescent females were injured and sought medical-care than males (Tables 2, 3). Continuing, generally, of the less than 10% of adolescent Jamaicans who reported an illness or injury in 2007, 54% sought medical care, which indicates that some illnesses or injuries are not associated with health care utilization.

In a text titled "Health Issues in the Caribbean" of the eight articles on adolescents [19], 1) examined 'The Health Impact of Injuries' and 2) 'Injuries – The Broad Consequences' again indicating limitedness of studies on the general health status of this cohort. Injuries comprised a small percentage of poor health status and while depression is an aspect to the broad definition of health according to the WHO [20] and can be used to proxy some aspect of health, a recently published study by Bourne [21] was not significantly correlated with good health status of those who sought medical care in Jamaica. A study by Bourne et al. [22], examining mortality and health status of elderly Jamaicans, revealed that chronic health conditions were not correlated with age which may argue for the non-examination of general health conditions for adolescents. Studies have shown that the health status over the life course is not constant [23-27], and Kuh and Ben-Shlomo [28] showed that as people age, the probability of experiencing chronic diseases increase and so understanding the elderly's health conditions is not comprehending adolescents' health conditions or health.

According to Kuh and Ben-Shlomo [28], in the last 2 decades, the main concern of public health in developed countries was chronic diseases and while these accounted for 60% of mortality in developing countries and that 80% of chronic illness were in low-to-middle income countries [29], the reality is that this expands beyond the elderly. In 2007, 40.2% of elderly Jamaicans indicated that they had an illness; 19.1% of those with diabetes mellitus were 65+ and 21% were 60-64 years; of those with hypertension 36.5% were 65+ and 33% were 60-64 years and of those with arthritis 18.6% were 65+ and 16.9% 60-64 years [16]. Public health therefore, cannot singly be about the health status of a particular group over another or reproductive health and injuries of a particular age-sex cohort to another; but a

holistic understanding of health status of people over the life course in order to formulate policies that are embedded in research literature. There is indeed a paucity of health literature on the health status of adolescents, health conditions, and the demographic shifts in health conditions of this age cohort in Jamaica. Depression and reproductive health are not comprehensive enough to provide a holistic understanding of adolescents' health status in spite of the low percentage of them who are experiencing ill-health. This study aims to examine the demographic shifts in health conditions and the typology of health conditions experienced by this age cohort.

Materials and Method

The current study extracted a sample of 5,229 and 1,394 for adolescents 10-19 years from two surveys collected jointly by the Planning Institute of Jamaica and the Statistical Institute of Jamaica for 2002 and 2007 respectively [30,31]. The method of selection of the sample from each survey was solely based on age (10-19 years). The survey (Jamaica Survey of Living Condition) began in 1989 to collect data from Jamaicans in order to assess policies of the government. Since 1989, yearly the JSLC adds a new module in order to examine that phenomenon which is critical within the nation. In 2002, the foci were on 1) social safety net and 2) crime and victimization; and for 2007, there was no focus. The sample for the earlier survey was 25,018 respondents and for the latter, it was 6,783 respondents.

The survey was drawn using stratified random sampling. This design was a two-stage stratified random sampling design where there was a Primary Sampling Unit (PSU) and a selection of dwellings from the primary units. The PSU is an Enumeration District (ED), which constitutes a minimum of 100 residences in rural areas and 150 in urban areas. An ED is an independent geographic unit that shares a common boundary. This means that the country was grouped into strata of equal size based on dwellings (EDs). Based on the PSUs, a listing of all the dwellings was made, and this became the sampling frame from which a Master Sample of dwelling was compiled, which in turn provided the sampling frame for the labor force. One third of the Labor Force Survey (i.e. LFS) was selected for the JSLC [30, 31]. The sample was weighted to reflect the population of the nation.

The JSLC 2007 [30] was conducted May and August of that year; while the JSLC 2002 was administered between July and October of that year. The researchers chose this survey based on the fact that it is the latest survey on the national population and that that it has data on self-reported health status of Jamaicans. A self-administered questionnaire was used to collect the data, which were stored and analyzed using SPSS for Windows 16.0 (SPSS Inc; Chicago, IL, USA). The questionnaire was modeled from the World

Bank's Living Standards Measurement Study (LSMS) household survey. There are some modifications to the LSMS, as JSLC is more focused on policy impacts. The questionnaire covered areas such as socio-demographic variables – such as education; daily expenses (for past 7-day; food and other consumption expenditure; inventory of durable goods; health variables; crime and victimization; social safety net and anthropometry. The non-response rate for the survey for 2007 was 26.2% and 27.7%. The non-response includes refusals and rejected cases in data cleaning.

Measurement

Adolescents: an individual who is 10-19 years. Younger adolescents: An individual who is 10-14 years. Older adolescents: An individual who is 15-19 years.

Statistical Analysis

Descriptive statistics, such as mean, standard deviation (SD), frequency and percentage were used to analyze the socio-demographic characteristics of the sample. Chi-square was used to examine the association between non-metric variables, and an Analysis of Variance (ANOVA) was used to test the relationships between metric and non-dichotomous categorical variables. The level of significance used in this research was 5% (i.e. 95% confidence interval).

Results

Of the 5,229 adolescents (ages 10-19 years) sampled in 2002, one-half were males, 62.8% resided in rural areas, 24.6% lived in semi-urban zones and 12.6% dwelled in urban areas. The response rate for the question 'Have you ever had any illness in the past 4 weeks' was 95.9% (n=5,017). Two percent of those who answered the question on 'Are you pregnant' (n=1,569) remarked yes. Comparatively, of the 1,394 adolescents sampled in 2007, 48.2% was males, 51.1% resided in rural area, 28.3% lived in urban zones and 20.6 dwelled in semi-urban areas. Of the 96.1% (n=1,340) of respondents answered the question on 'Have you ever had any illness in the past 4 weeks', 6.6% reported yes. In 2002, 63.9% of the sample sought medical care, 9.3% were coverage by health insurance. Of those who had indicated an illness, 28.3% were diagnosed with cold, 5.1% diarrhea, 24.6% asthma, 0.4% diabetes mellitus, 0.4% hypertension, 0.4% arthritis, 25.0% other and 15.9% indicated that they were not diagnosed by a medical practitioner or a health care worker. In 2007, 53.8% of sample sought medical care, and 14.7% were coverage by health insurance (i.e. 9.3% private and 5.4% public coverage). Of those who had reported suffering from an illness, 23.7% were diagnosed with cold, 1.1% diarrhea, 17.2% asthma, 3.2% diabetes mellitus, 1.1% hypertension, 35.5% other and 18.3% indicated that they were not diagnosed by a medical practitioner or a health care worker.

Table 4 Demographic characteristic of sample

Variable	2002			2007		
	Urban	Semi-urban	Rural	Urban	Semi-urban	Rural
Health Insurance coverage*						
No	87.2	86.3	93.1	80.6	86.4	87.4
Yes, Public	12.8	13.7	6.9	6.1	4.0	5.5
Yes, Private	-	-	-	13.3	9.6	7.0
Health conditions						
Cold	25.0	28.8	28.7	11.1	37.5	26.0
Diarrhea	3.1	8.8	3.7	0.0	0.0	2.0
Asthma	34.4	17.5	26.2	25.9	18.8	12.0
Diabetes mellitus	0.0	1.3	0.0	0.0	0.0	6.0
Hypertension	0.0	0.0	0.6	3.7	0.0	0.0
Arthritis	0.0	0.3	0.0	-	-	-
Other	25.0	21.3	26.8	40.7	31.3	34.0
No	12.5	21.3	14.0	18.5	12.5	20.0
Pregnancy						
No	98.1	97.0	98.4			
Yes	1.9	3.0	1.6			
Educational level*						
Primary and below	4.3	3.3	4.7	36.6	48.6	46.1
Secondary or high	93.6	98.2	94.0	56.5	48.6	53.0
University	2.1	1.5	1.3	6.9	2.9	0.9
Population Income quintile*						
Poorest 20%	13.7	15.0	25.7	12.2	12.9	33.0
Poor	14.6	16.7	23.9	13.5	24.7	28.6
Middle	21.1	22.2	22.3	22.3	20.2	19.8
Wealthy	24.4	22.2	18.9	25.1	22.0	14.2
Wealthiest 20%	26.3	23.9	9.2	26.9	20.2	4.5
Length of illness – Mean (SD) days	7.19 (6.29)	7.86 (7.46)	7.8 (8.14)	5.96 (5.74)	28.38 (89.9)	33.4 (148)
No of visits - Mean (SD) in days	1.4 (1.3)	1.4(0.6)	1.5(1.0)	1.13 (0.516)	1.38 (0.518)	1.19 (0.402)
Health care-seeking behavior						
No	48.0	56.6	44.0	40.7	50.0	48.0
Yes	52.0	43.4	56.0	59.3	50.0	52.0
Age Mean (SD) in years	14.4 (2.91)	14.4 (2.85)	14.2(2.85)	14.43 (2.7)	14.22 (2.90)	14.01 (2.7)

* $P < 0.05$

Table 5 Health conditions by medical care-seeking behavior, 2002 and 2007

Health conditions	2002*		2007	
	Not seek medical care %	Seek medical care %	Not seek medical care %	Seek medical care %
Cold	43.60	14.20	37.20	12.00
Diarrhea	4.50	5.70	0.00	2.00
Asthma	19.50	29.10	18.60	16.00
Diabetes mellitus	0.00	0.70	2.30	4.00
Hypertension	0.00	0.70	0.00	2.00
Arthritis	0.80	0.00	0.00	0.00
Other	11.30	38.30	32.60	38.00

* $P < 0.05$, χ^2 (DF = 7) = 49.823, cc = 0.392

Table 6 Health conditions by health insurance coverage

Health Condition	2002*		2007**		
	No health insurance	Health insurance	No health insurance	Health insurance	
	%	%	%	Private	Public
Cold	28.7	24.0	26.7	16.7	0.0
Diarrhea	5.6	0.0	1.3	0.0	0.0
Asthma	21.9	52.0	17.3	16.7	16.7
Diabetes mellitus	0.0	4.0	1.3	0.0	33.3
Hypertension	0.4	0.0	1.3	0.0	0.0
Arthritis	0.0	4.0	-	-	-
Other	27.1	4.0	34.7	50.0	16.7

* $P < 0.05$, χ^2 (DF = 7) = 35.222, cc = 0.336; ** $P < 0.05$, χ^2 (DF = 12) = 22.641, cc = 0.442

Figure 1 revealed that there was a shift in the typology of health conditions for 2007 over 2002. In 2002, most of the respondents had cold (28.3%) and in 2007, this shifted to unspecified health conditions (35.5%). The number of reported cases of arthritis in adolescents was 0.4%, in 2002, which fell by 100% in 2007. The number of reported cases of diarrhea and cold fell and notable increases for 2007 over 2002 were for unspecified conditions, 42%; hypertension, 175%; and diabetes mellitus, 700%.

compared to other geographical zones, with urban areas recorded the most.

No significant statistical association was found between health conditions and area of residents ($P > 0.05$). However, there is a shift in the typology of health conditions from cold and diarrhea other illness and to a less extent hypertension. In 2002, 0.4% of reported being diagnosed with hypertension (from rural area) and the increased by 175% in 2007 (to 1.1%); and this shifted to urban zones (Table 4). There is a shift to unclassified health conditions in 2007 over 2002, and this was across the 3 geographical areas in Jamaica. The number of adolescents being diagnosed with asthma fell across the geographic zones except in semi-urban area where a marginal increase was noted, with the greatest movement being in rural area (+54.2) followed by urban (+24.7%) and a reduction of 7.4% in semi-urban area. No arthritis was reported in 2007 compared to a 0.4% in semi-urban areas in 2002.

Table 4 revealed that there was no significant difference between the lengths of time spent receiving medical care by area of resident for both years. The number of urban adolescents diagnosed with cold fell by more than 100% in 2007 over 2002 and while there was a reduction of the same health condition for rural adolescents, this was not the case for the semi-urban populace. However based on Table 4, there was a 30.2% increased in the number of semi-urban adolescents who were diagnosed with cold for 2007 cover 2002.

In 2002, a significant statistical difference was found between those who sought and did not seek medical care by the typology of health conditions - $P < 0.05$, χ^2 (DF = 7) = 49.823, contingency coefficient = 0.392. However, none was found for 2007 - $P > 0.05$ (Table 5). Based on Table 5, 3.1 times more adolescents who were diagnosed with a cold did not seek medical care compared to those who did. For the chronic illness except for arthritis, those ill respondents

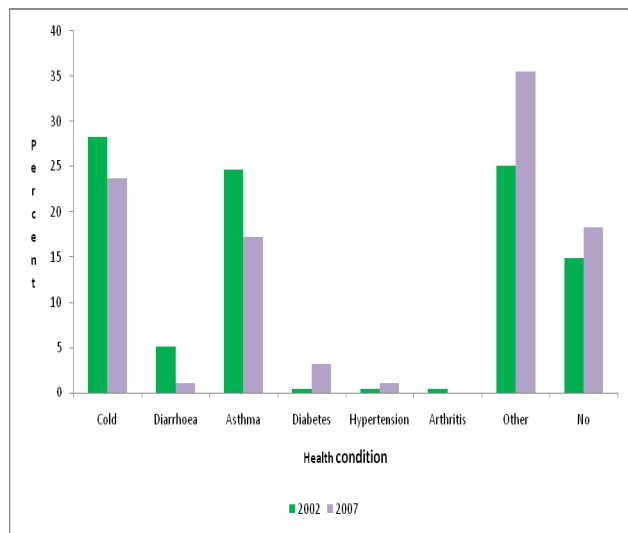


Fig. 1 Health condition for 2002 and 2007

On further examination of the data, a cross tabulation with health insurance coverage, educational level, and population income quintile by area of residents revealed a significant statistical correlation ($p < 0.05$) (Table 4). In 2002, rural adolescents were the least covered by health insurance and this remained the same in 2007. Concomitantly, the rural areas had the least number of people in the wealthiest 20%

sought medical care. With regards to the unspecified health conditions, 3.4 times more sought health care compared to those who did not. For 2007, no statistical difference was observed for health conditions and health care-seeking behavior of adolescents. Comparatively, the number of the adolescents seeking medical care for 2007 over 2002 fell for asthma patients likewise for diarrhea and cold patients. However, there was a substantial increase in the number of adolescents both seeking and not seeking care for diabetes mellitus; and the those seeking care for hypertension saw a drastic increase.

A cross-tabulation between health condition and health insurance coverage revealed that there was a significant statistical correlation for 2002 [$p < 0.05$, χ^2 (DF = 7) = 35.222, cc = 0.336] and for 2007 [$P < 0.05$, χ^2 (DF = 12) = 22.641, cc = 0.442] – Table 6. Based on Table 6, in 2002, most of those who were covered by health insurance had cold (24%) and asthma (52%); and this shift to diabetes mellitus (33%) and unspecified conditions in 2007. There was a 30.4% reduction in the number of adolescents who were coverage by health insurance in 2007 cover 2002 who reported having a cold (Table 6).

The cross-tabulation between health condition and cohort of adolescents revealed that there is no significant statistical association ($P > 0.05$). Although no statistical correlation was identified by Table 7, 27.6% of younger adolescents in 2002 reported unspecified illness compared to 48.6% of the older adolescents. Based on Table 7, the number of diabetic cases was zero for older adolescents in both years, the number of reported diabetic cases, for younger adolescents, increased by 766.67% (to 5.2%) for 2007 over 2002.

Using data for 2007, on investigation of hypertension with diabetes mellitus, it was found that a statistical correlation existed between both conditions (χ^2 (DF = 1) = 34.439, $P < 0.001$). Continuing, the study found that 23.5% of those with diabetes mellitus had hypertension.

Table 7 Health condition by age cohort, 2002 and 2007.

Health condition	2002*		2007**	
	Adolescents		Adolescents	
	Younger	Older	Younger	Older
	%	%	%	%
Cold	29.0	27.2	31.0	11.4
Diarrhea	4.3	6.1	0.0	2.9
Asthma	27.2	21.1	19.0	14.3
Diabetes mellitus	0.6	0.0	5.2	0.0
Hypertension	0.0	0.9	0.0	2.9
Arthritis	0.0	0.9	-	-
Other	22.2	28.9	27.6	48.6

*, **: Not statistically significant ($P > 0.05$)

Discussion

Public health is not about collecting; addressing and formulating policies for an individual patient as it must focus on diseases and conditions which influence health and by so doing address a large population [32]. Public health therefore must be guided by research on a population, and the adolescent is one such sub-population. In Jamaica, this comprised about 20% indicating that by not having research information on this sub-population, policies will be on a trial and error basis, which suggests that 1 in every 5 Jamaican is not understood. Concomitantly, health conditions are well researched in adolescents [33-36]; but there is no such study on this sub-population in Jamaica. The current study found that chronic conditions such as diabetes mellitus and hypertension were diagnosed in adolescent Jamaicans. In 2007, 3 out of every 100 adolescent Jamaicans had diabetes and 1 in every 100 had diabetes mellitus. The diabetic cases were all found in younger adolescents (ages 10 to 14 years); while the hypertensive cases were only found in older adolescents (ages 15 to 19 years). Interestingly in this study a shift in typology of health conditions was observed for 2007 over 2002. In the former year, the leading health condition was cold (28 out of every 100) to unspecified conditions (36 out of every 100). Like cold, the proportion of cases of asthma has fallen. However, a critical finding in this study was the drastic increase in percentage of sample with diabetes and hypertension. Although there is a shift towards chronic non-communicable diseases in 2007 over the 2002, the percentage of adolescents seeking medical care fell by approximately 10%.

Hypertension is viewed as a silent killer [37] and like hypertension, diabetes mellitus is very high in Jamaica [38], indicating that the adolescent will be exposed to chronic diseases management over the remaining of their lives. Morrison [39] titled an article entitled ‘Diabetes and hypertension: Twin Trouble’ in which he established that diabetes mellitus and hypertension have now become two problems for Jamaicans and in the wider Caribbean. This situation was equally correlated by Callender [40] at the 6th International Diabetes and Hypertension Conference, which was held in Jamaica in March 2000. Callender [40] found that there was a positive association between diabetic and hypertensive patients - 50% of individuals with diabetes had a history of hypertension [40]. Prior to those scholars’ work, Eldermire [41] finds that 34.8% of new cases of diabetes and 39.6% of hypertension were associated to senior citizens (i.e. ages 60 and over). Unlike the general populace and the elderly cohort, 24 out of every 100 adolescents had hypertension and diabetes mellitus, indicating the importance of studying a sub-population and not assuming that what holds for the general population or a particular sub-population is the same for another sub-population.

Among the challenges associated with chronic conditions are 1) management, 2) costing, 3) impact on the family, 4) influence on lifestyle behavior and 5) psychosocial challenge of those conditions. An adolescent with hypertension or diabetes, and diabetes and hypertension impacts on functional capacity of people in the same age cohort. This is not atypical in Jamaica as the same obtains in America [35]. Chronic illnesses in adolescents interface with their schooling, intellectual development, recreation, future employability, and occupational selection. And when these are twin (i.e. hypertension and diabetes mellitus), severity in those conditions can result in poverty for the family, individual and requires non-out of pocket assistance such as social welfare or health insurance coverage. Since 2007 in Jamaica, health care coverage for children (0 -18 years) is free and offers much assistance to those who are poor, suffering from health conditions and by extension reduce the medical care out of pocket payment for adolescents. In spite of this positive, chronic disease management is a socio-economic and psychological burden not only for the adolescents but their families. Chronic diseases are more than a public health concern, they account for a substantial percentage of mortality each year and in the United States studies show that 10% of the adolescent population (or 20 million) have some type of such conditions [42, 43] and while the number of Jamaican adolescents who are affected are substantially a small percentage than in America or even Switzerland [44] – 11.4% of girls and 9.6% of boys, the reality of Jamaican adolescent living with chronic diseases do exist.

According to the WHO [29] estimated that 60% of all mortalities in 2005 was as a result of chronic illness. While injuries accounted for more deaths of adolescents in Jamaica than chronic conditions, understanding health condition is still as important as reproductive health risk, infant mortality as it could lead to premature mortality or could mean that the cost of health care expenditure by the state could substantially increase if those with chronic conditions will life into old years (60+ years). Health denotes longevity, and ill-health suggests that the quality of life of those are affected will be lowered than those with good health. If ill adolescents are to live a long life, health care services should cater to their needs, this postulate was equally uttered by Sawyer et al. [45].

There is another management epidemic which this study has unearthed, which is the shift in health conditions to the unspecified classification. With 4 in every 10 Jamaican adolescent having unspecified health conditions and 5 in 10 older adolescents, this silent category could be a premature mortality group for this age cohort. Chronic diseases management therefore must treat the unspecified category in health conditions of adolescent Jamaicans with urgency, as the fact that so many of the sample were in this group, an understanding of its components will provide better

modalities of responding to the precarious health care needs of this silent group.

Conclusions

The general health status of adolescents (ages 10-19 years) in Jamaica is very good, with 93 out of every 100 indicated that they have had no illness/injury in the survey period. In spite of the small numbers who have ill-health the most prevalent health condition in 2007 was in the unspecified category which is a shift away from cold in 2002. Interestingly in this study was the exponential increase in number of diabetic adolescents in 2007 over 2002. In 2007, the number of diabetic adolescents increased by 700% and hypertension increased by 175% indicated that this is a public health challenge. There is an immediate need for health promotion and education campaign geared towards the sensitization of adolescents about the rise in chronic illness, its challenges, lifestyle practices and willingness to seek care if particular symptoms are presently affecting them.

Conflict of Interest

The author has no conflict of interest report.

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