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The Ministry of Health & Wellness is pleased to present this special edition of Vitals, which focuses on the health trends and statistics of our children from birth to adolescence. In this edition, we will explore health status indicators for this age group.

The first 1,000 days of a child’s life, conception to two years, is critical to attaining optimal health. In light of this, the Ministry of Health & Wellness’ Early Stimulation Programme is being implemented by the Family Health Unit in collaboration with the Caribbean Institute of Health Research (CAIHR) at the University of the West Indies, Mona. The goal is to provide relevant, evidence-based interventions to optimise and support early childhood development, with emphasis on vulnerable groups, utilising the primary care approach and the involvement of the family unit, health team and the wider community.

The period of adolescence poses new challenges to an aging health service and is characterised by rapid physical, cognitive and social changes, including sexual and reproductive maturation. Adolescents are generally healthy, but their risk-taking behaviours pose challenges to their health and development.

This issue of Vitals shows some concerning trends among children and adolescents: (1) assault and transport accidents were leading causes of death for persons 5 to 19 years in 2016; (2) the prevalence of overweight in children under 5 years has doubled between 1997 and 2014; (3) One out of three adolescents were overweight or obese in 2017; (4) one out of four adolescents had seriously considered suicide in 2010 and 2017.

As the Ministry of Health & Wellness, we have already begun to address these concerning trends through various programmes and partnerships. The Jamaica Moves in Schools Programme, including the gradual restriction on sugary drink and the draft National School Nutrition Policy in partnership with the Ministry of Education, Youth and Information will address the alarming obesity levels of our children. Primary care physicians have been trained in the Mental Health Global Action Plan Modules (mhGAP), including the detection, treatment of depression and suicidal risk behavior.

I congratulate the Vitals’ team for providing a statistical report of such high standards that supports evidence based planning and monitoring for health.

Dr. the Hon. Christopher Tufton, MP
Minister of Health & Wellness
STATISTICS AT A GLANCE

CHILD (1 YEAR – 9 YEARS)

- Immunization
  - MMR1 (89%) (EPID, 2018)
  - MMR2 (82%)

- Nutrition
  - Undernutrition (0 to 59 months)
    Underweight (2.3%), Stunting (6.2%), Wasting (3.6%)
  - Overnutrition (0 to 59 months)
    Overweight (8.5%) (JSLC, 2014)

- Education
  - Primary Completion Rate
    Male 99.6, Female 99.3
  - Primary Net Enrolment Rates
    Male 93.5, Female 92.9, Total 93.2 (MOE, 2015)

- Mortality
  - Under 5 mortality rate: 16.4 per 1,000 live births (RGD, 2016)

ADOLESCENT (10 – 19 YEARS)

Age 13-17 years (GSSHS, 2017)

- Sexual Health
  - 46.7% had sexual intercourse
  - 61.8% before age 14 for the first time
  - 64% used a condom during the last sexual intercourse

- Substance Use
  - 19.4% used any tobacco products
  - 71.1% drank alcohol before age 14 for the first time
  - 29% drank alcohol until they were really drunk one or more times

- Suicide / Injuries / Violence
  - 26% seriously considered attempting suicide
  - 8.8% did not have any close friends
  - 33.8% were bullied
  - 31.2% were in a physical fight
  - 39.3% were seriously injured

- Nutrition
  - 69.1% drank carbonated beverages
  - one or more times per day
  - 23.3% were overweight
  - 9.2% were obese

- Physical Activity
  - 19% attended physical education classes three or more days each week
  - 56.4% spent three or more hours per day sitting and watching television, playing computer games etc

- Education
  - Lower Secondary Net Enrolment Rates
    Male 79.4, Female 84.8, Total 82.1
  - Upper Secondary Net Enrolment Rates
    Male 60.4, Female 72.2, Total 68.2 (MOE, 2015)

- Mortality
  - 5-19 years - 47.4 per 100,000 population (RGD 2016)

Sources:
- Expanded Programme on Immunization Database (EPID), Ministry of Health, 2018
- Registrar General’s Department (RGD), 2017 (Preliminary Data)
- Statistical Institute of Jamaica (STATIN), 2017
- Hospital Monthly Statistical Report (HMSR), Ministry of Health, 2017 (Provisional Data)
- Jamaica Survey of Living Conditions (JSLC), 2014
- Global School-based Student Health Survey (GSSHS), 2017
- Ministry of Education (MOE), 2015
'Childhood' has been defined as the period between 0 and 18 years of age (UNICEF, 1990), while 'early childhood' spans the time between birth and 8 years of age (UNESCO, 2018). The International Convention on the Rights of The Child recognizes this period as a protected space during the human life-course, critical to the development of the individual and to the health of societies (UNICEF, 1990). The well-being of the child is threatened by many external factors and the threats are greatest within the first 5 years of life, moreso within the first weeks of life (WHO, 2018). The influences on wellbeing begin while the child is in the womb, and continue into the early weeks and months of life (Jacob, et. al, 2017). During this time, interventions such as good antenatal care, a skilled birth attendant, access to safe water and good hygiene, as well as immunization and good nutrition - beginning with the early introduction of breastfeeding - are deciding factors in survival that set the tone for the future health of the individual.

The first 1,000 days of life span the period from conception to 2 years of age (Cusick S., Georgieff., M. (n.d.)), and is a critical time which influences whether a child develops to his or her fullest potential. The most rapid period of brain growth occurs during the first 1,000 days, which represents the 'greatest opportunity to provide optimal nutrition' but also the 'greatest brain vulnerability to nutrition deficit' (Cusick S., Georgieff., M. (n.d.)). The effects of malnutrition during this window may cause irreparable damage from which the child is unable to recover. Critical nutrients needed for optimal growth and development include adequate energy provided by carbohydrates, high quality protein, poly-unsaturated fatty acids, iron, zinc, copper, iodine, choline, folate, vitamins A, B6 and B12, with iron being critical to mental development and functioning in later life. The following is a guide to good nutrition during the varying phases of growth and development in the first 1,000 days:

**PREGNANCY**
- The mother and father should practice good nutrition to maintain an optimal health status prior to conception. (Pietrobelli, 2017)
- A diet rich in iron and folic acid is encouraged

**BABY**
- Exclusive breastfeeding for the first six months of life is recommended
- Continued Breastfeeding after six months up to 2 years or beyond is encouraged, in tandem with proper introduction of complementary foods at six months
- Introduce a variety of nutrient-rich foods, paying attention to foods rich in iron and Vitamin A, high quality protein and adequate energy to support growth
- Limit excessive sugar intake and delay use of cow’s milk in the first year of life

**TODDLER**
- A variety of foods from the six food groups including fruits, vegetables, foods from animals, legumes and staples (carbohydrate sources)are essential
- Parents should practice the dietary behaviours they want their children to adopt

Table adapted from:

Other Sources:


Low birth weight (LBW) is defined as a birthweight of less than 2500 g (WHO, 2014). Infants born with LBW are at an increased risk of illness and death, particularly in the first month of life, and may have an increased risk of developing high blood pressure, cardiovascular disease, type 2 diabetes, renal and other diseases in later life. LBW may result from prematurity, or restriction of the growth of the fetus in the mother’s womb. Factors associated with LBW include obstetric conditions (multiple births, short interval-spacing between births) maternal complications causing changes to the placenta or umbilical cord, maternal disease (infections, hypertension and diabetes), poor nutrition including anemia in pregnancy, low maternal weight, as well as other factors such as low socioeconomic status, age of the mother, and smoking, drinking and other drug use of the mother while pregnant. While some risk factors for LBW cannot be altered, it is recognized that some are lifestyle-related, and may be able to be prevented.

There were 32,782 live births occurring in government hospitals (including the University Hospital of the West Indies) in Jamaica (approximately 96.4%) during 2017, of which 9.6% had birth weights below 2500 g (5.5lbs)*. There has been a declining trend in percentage low birth weight between the period 2010-2017, with 2010 having the highest rate of 13.9%. From 2001 to 2010 there was a general increase in low birth weight and from 2011 a general decrease. In Jamaica more than 95% of births occur in public hospitals, for example in 2017, approximately 96.4% (32,782 live births in public hospitals of the 33,979 live births in Jamaica.)

In 2012, the World Health Assembly endorsed a global low birth weight target to reduce the number of infants born with LBW by 30% by 2025. Pregnant women are encouraged to seek prenatal care and to adopt lifestyle practices to optimize the health of mother and baby. This may include taking folic acid and iron supplements during pregnancy as well as the cessation of smoking.

With the decrease in child mortality and the introduction of the Sustainable Development Goals in 2016, attention has now shifted to improvements in the identification of children at-risk of developmental delays and disabilities, the optimisation of child development, and the implementation of related programmes and activities with the potential for long-term economic productivity. Additionally, biological, behavioural and psychosocial processes in pregnancy and early childhood have been linked with the development of chronic disease and mental illness patterns in adulthood. The focus of preventative interventions in the first 1,000 days of a person’s life has proven beneficial in deterring the development of disease and producing one socially more functional adult.

Despite the many early stimulation programmes and interventions implemented in Jamaica over the years for the 0-3 years target population, many parents in Jamaica often do not have access to opportunities that enable development of children to their full potential. To address this problem, the Family Health Unit has commenced the implementation of the Ministry of Health & Wellness’ Early Stimulation Programme in collaboration with the Caribbean Institute of Health Research (CAIHR) at the University of the West Indies, Mona. The goal is to provide relevant, evidence-based interventions to optimise and support early childhood development, with emphasis on vulnerable groups, utilising the primary care approach and the involvement of the family unit, health team and the wider community.

The programme will be implemented on a phased basis. In Phase 1, home visits will be conducted by Community Health Aides (CHAs) in one health district in each of the 13 Parish Health Departments across the island using the Reach-Up Jamaica home visiting curriculum developed by the child development team at CAIHR. Home visits are scheduled to begin in 2019 after training of CHAs. Phase 1 will continue for one year, after which the programme will be evaluated and scaled up. There are also plans to initiate a programme based at health centres to educate parents attending child health clinic on early stimulation.

The Ministry of Health & Wellness is committed to ensuring the successful implementation of this programme and the achievement of the desired outcomes for the child, parents and family. These outcomes include: improved parent-child interaction and play; improved self-confidence in parents and enjoyment in bringing up their children; and improved language, intellectual, behavioural and emotional development in children. The programme is also expected to have positive long-term impact on the health system and on society on a whole as optimisation of child development has been proven to deter the development of chronic disease and produce more socially functional adults that have better educational attainment, improved mental health, reduced violent behaviour and increased income.
In the 1980s, syphilis was made a priority sexually transmitted infection due to its prevalence and the risk of mother-to-child transmission. Due to the possibility of curing syphilis, interventions were made to increase case detection and treatment, with a focus on pregnant women in order to prevent mother-to-child transmission.

In the late 1980s and the 1990s, HIV/AIDS was among the top 10 causes of death in children in Jamaica. In order to address this problem, a programme for the Prevention of Mother-to-Child Transmission (pMTCT) of HIV in Jamaica was implemented as a pilot programme in 2000. In this programme, mothers were counselled and tested for HIV and both the mother and new-born infant were given medication (Nevirapine) to prevent transmission. In 2002, The Kingston Paediatric and Perinatal HIV/AIDS Programme (KPAIDS) was launched to identify HIV-infected pregnant women and provide therapy and follow-up for HIV-exposed infants.

Between 2005 and 2010, there were improvements in laboratory testing and linkage of HIV-infected pregnant women to care. The KPAIDS and other initiatives led to a large decline in mother-to-child transmission of HIV over the decade.

In 2009, the Ministry of Health in collaboration with the KPAIDS team – now renamed Jamaica’s Paediatric, Perinatal, Adolescent Infectious Diseases Programme (JaPPAIDS) – began an initiative to implement pMTCT services islandwide. Due to these initiatives, among others, the first decade of the 21st century saw transmission of HIV from mother to child in Jamaica decline to less than 5% in HIV-affected pregnancies.

The Elimination of Mother-to-Child Transmission Programme (eMTCT) now focusses on HIV, Syphilis and Hepatitis B. This elimination will depend on highly skilled health workers, adequate laboratory support, and maintenance of drug supplies for treatment. It is also important to have a population that is knowledgeable about the diseases and that has access to adequate health services for management. Various initiatives have been undertaken by the Ministry of Health to fill any gaps and to ensure the fulfilment of the goal of elimination.
CHILD HEALTH
PREVENTION OF MOTHER-TO-CHILD TRANSMISSION

DIAGNOSIS OF HIV/AIDS AMONG CHILDREN 0 TO 9 YEARS: JAMAICA, 1982 TO 2017

Diagnosis of HIV/AIDS Among Children 0 to 9 Years: Jamaica, 1982 to 2017

PMTCT INTERVENTIONS

1. In July of 2000, a Call to Action was done and the programme in Jamaica began with a nevirapine demonstration project that targeted pregnant women and their infants in Greater Kingston.

2. In 2001, a “Further Call to Action” was done. This was a Joint Collaboration between the Ministry of Health and the University Hospital of the West Indies to address the paediatric and perinatal HIV Epidemic.

3. In September of 2002, Jamaica introduced Zidovudine chemoprophylaxis to mothers and infants in Greater Kingston.

4. In 2004, the HIV Antiretroviral Drug Treatment (ART) Programme began.

5. In 2005, the programme expanded islandwide through the Jamaican Perinatal, Paediatric and Adolescent HIV/AIDS Programme (JaPPAIDS).

6. In 2006, a combination of Antiretroviral Drug Treatments (ART) were used in pregnant women and this continued through to 2015.

7. In late 2009, began early infant diagnosis utilizing dried blood spot testing by RNA/DNA polymerase chain reaction (PCR).


CHILD HEALTH
INFLUENZA IN CHILDREN

DISTRIBUTION OF SARI CASES BY AGE GROUP: JAMAICA 2018

15% 2 to 4 Years
11% 12 to 23 Months
11% 6 to 11 Months
11% Under 6 Months
8% 5 to 14 Years
5% 50 to 64 Years
4% 65 Years & Over
11% 15 to 49 Years

JAMAICA: PERCENTAGE OF HOSPITAL ADMISSIONS FOR SEVERE ACUTE RESPIRATORY INFECTION (SARI) IN THE UNDER 5 YEARS AGE GROUP, 2017 AND 2018

Influenza is a highly contagious respiratory illness and is commonly referred to as ‘flu’. There are several subtypes of the influenza viruses, which cause mild to severe illness. Common symptoms of influenza infection include sudden onset of fever or chills, cough, headache, runny/stuffy nose, sore throat, muscle pains or fatigue. Children may also have vomiting or diarrhea.

Severe Acute Respiratory Illness (SARI) is used as an indicator for influenza. The case definition for SARI is a patient who is admitted to hospital with fever (38°C) or history of fever and cough for less than 10 days.

Influenza disproportionately affects the under 5 years age group each year with the 0-4 years age category accounting for 78.6% (385/490) of cases in 2017, and 71.9% (261/363) of total cases in 2018.

Among the under 5 years age group, the 2 to 4 years age group account for approximately half of the cases (49%). The remainder of the cases were distributed among the other age categories under surveillance: under 6 months (16%), 6 to 11 months (14%) and 12 to 23 months (21%).

When compared to 2017 surveillance data, the percentage of hospital admissions for SARI in the under 5 age group in 2018 was generally lower than in 2017. Higher figures were observed in 2018 between epidemiological weeks 15 to 19 and 45 to 52 (i.e. in April, and November to December 2018). The percentage of hospital admissions for SARI ranged from 0% to 8.4% in 2018 with a mean of 2.1%, while in 2017 the range was from 0% to 8.7% and the mean was 2.8%.
Undernutrition (low weight for age) in children 0 to 59 months has been on an overall decline since the early 2000s. Between 1995 and 2014, the highest instance of undernutrition was in 2001 with 6.4%. The lowest recorded instance of undernutrition in the 19-year period was in 2007, which was 1.9%.

Overweight (excess weight for height) among children 0 to 59 months has increased since the late 1990s. Between 1997 and 2014, the prevalence has doubled from 4.3% to 8.5%.

Source: Data from Jamaica Survey of Living Conditions, Planning Institute of Jamaica (PIOJ), and Statistical Institute of Jamaica (STATIN)
**VACCINATION COVERAGE 2018**

**INFANT (0-12 MONTHS)**
- BCG: 93%
- POLIO 3: 98%
- DPT 3: 97%
- HIB 3: 98%
- HEP 3: 97%

**CHILD (1 YEAR – 9 YEARS)**
- MMR1: 89%
- MMR2: 82%

Source: Data from Expanded Programme on Immunization Database, Family Health Services, Ministry of Health. Jamaica, 2018

* Data is Preliminary for 2018

**Vaccination Coverage for 2018:**
From birth to 11 months: 93% of children received the BCG Vaccine; 98% the third dose of the Polio Vaccine; 97% the third dose of the Diphtheria Pertussis Tetanus (DPT) Vaccine; 97% Hepatitis B Vaccine; 98% Haemophilus influenzae Type B Vaccine.

For children 12 to 23 months: 89% received the first Measles, Mumps and Rubella (MMR) vaccine and 82% received the second dose of MMR.
The under 5 death rate increased from 14.8 per 1,000 live births in 2000 to 16.4 per 1,000 live births in 2016. The rank of the 10 leading causes of death in the under 5 age group has also changed. Notably, deaths due to diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism has moved from position 5 in 2000 to position 12 in 2016.

Certain conditions originating in the perinatal period and congenital malformations, deformations and chromosomal abnormalities were the 1st and 2nd ranked leading causes of death in the under 5 age group in 2000 and also retained those positions in 2016.
Jamaica’s first birth cohort study took place 32 years ago in 1986. The Jamaican Birth Cohort Study 2011 (JA Kids) is the second national birth cohort study of Jamaican children and includes babies born in all 14 parishes in Jamaica between July 1, 2011 and September 30, 2011. Approximately 11,124 children were born in Jamaica during this period.

This seven-year birth cohort study was conducted by Principal Investigator Professor Maureen Samms-Vaughan and a team of researchers from The University of the West Indies (UWI). The study enrolled approximately 9,700 mothers in the antenatal period and followed children and families for the first 2,000 days or 4-5 years.

**METHODOLOGY**

- April 16, to September 14, 2012
- 7,600 primary caregivers interviewed via telephone, primarily mothers
- Detailed follow-up of children’s health and development, family functioning, maternal and paternal health and well-being, parental stress, home learning environment and child-care arrangements

- 994 families (79% of a specially selected group of 1,300 who had participated in majority of previous contacts) interviewed face to face
- Child assessments done

**BIRTH CONTACT**

- 9,700 mothers enrolled
- 3,400 fathers who attended the hospital at the birth of their child
- Interviews conducted at birth using separate questionnaires for mothers and fathers
- 26 public and private hospitals participating

18-22 MONTH CONTACT

- 2,450 telephone interviews following up on children’s health and development
- 1,035 face to face interviews
- 3,485 mothers report on fatherhood
- 389 fathers (36.8%) attended and completed questionnaire
- Child assessments done

48-54 MONTH CONTACT
CHILD HEALTH
BEST PRACTICE: JA KIDS
THE JAMAICAN BIRTH COHORT STUDY 2011

KEY FINDINGS

**Major Wage Earner**
- Fathers (57.1%)
- Mothers (20.8%)
- Maternal Grandmother (22.1%)

**Most Parents Reported Having Healthy Children (99%)**

**Most Children are in School at 4 to 5 years (99%)**

**Father Relationships**
- 91% Fathers have a Relationship with child at Birth
- 45% Fathers are living with a child at 4 years

**1 in 5 Children have had herbal remedies**
- By 9 to 12 Months
- Garlic, Fever Grass, Spirit Weed, Lime Leaf, Cold Bush, Eucalyptus, Rice and Peas Bush

**35.6% Mothers Receive Social Support**

**16.9% Mothers were enrolled in the PATH Programme**

The PATH Programme was the single largest form of support


Images: www.vecteezy.com
Adolescence is a period characterised by rapid physical, cognitive and social changes, including sexual and reproductive maturation. Adolescents are generally healthy, but their risk-taking behaviours pose challenges to their health and development. Their inherent vulnerability and pressure from some corners of society, including their peers, can lead to the adoption of risky behaviours. Issues, including sexual identity and dealing with sexuality, adds to the dynamism of the period and cannot be overlooked by any service that provides for their need. The period of adolescence poses new challenges to an aging health service and investments must be made if the service is to remain relevant to the young person. The Ministry of Health (MOH) has, therefore, implemented a number of programmes to address these issues.

ADOLESCENT STANDARDS AND CRITERIA

Standards and Related Criteria for Adolescent Health (S&C) were developed as a guide for assuring quality health services for adolescents. The S&C cover areas under service delivery, such as affordability, accessibility, support of client rights, adequate physical and psychosocial assessment, adolescent-centred services and a supportive environment, among others. The S&C are currently being implemented in 18 sites.

St. Ann’s Bay, Port Antonio and Sandy Bay are examples of sites which have successfully implemented components of the S&C. Twenty-six (26) new sites have been identified for further roll-out of the standards.

ST. ANN’S BAY HEALTH CENTRE WELLNESS CENTRE ESTABLISHED IN JUNE, 2018

- Over 100 teens enrolled
- Service provision have included rap sessions, skills training, art and craft activities decoration, make-up application, and salsa dancing as part of routine sessions
- Collaboration with School HYPE (Health Youth Positive Energy) initiative
- Quarterly mobile services
- Establishment of Parish Adolescent Health Committees/Advisory Group
- Active involvement of adolescents in the planning of Adolescent-focused services (at least 40% membership in Parish Committees)

IMPLEMENTATION SITES FOR S&C

<table>
<thead>
<tr>
<th>Pilot/Roll-Out Sites</th>
<th>Sites Added in 2016</th>
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<tbody>
<tr>
<td>St. Ann’s Bay HD</td>
<td>Christiana HC</td>
</tr>
<tr>
<td>St. Jago HD</td>
<td>Morant Bay HC</td>
</tr>
<tr>
<td>Sandy Bay HC</td>
<td>Darlington HC</td>
</tr>
<tr>
<td>Mandeville Adolescent Health Clinic</td>
<td>Port Antonio HD</td>
</tr>
<tr>
<td>Victoria Jubilee Teen Clinic</td>
<td>Annotto Bay HD</td>
</tr>
<tr>
<td>The University Hospital of the West Indies Teen Clinic</td>
<td>Edna Manley HC</td>
</tr>
<tr>
<td>NFPB Mobile Clinic</td>
<td>Comprehensive HC</td>
</tr>
<tr>
<td>Santa Cruz Centre of Excellence</td>
<td>May Pen HD</td>
</tr>
<tr>
<td>Catherine Hall HC</td>
<td>Albert Town HC</td>
</tr>
</tbody>
</table>

Key: HC – Health Centre; HD – Health Department

Launch of the Adolescent Wellness Centre.
Photo courtesy of Jamaica Observer
In 2017, about a quarter (24.8%) of adolescents between 13 and 15 years had seriously considered committing suicide. This was not much higher than the proportion of adolescents 7 years prior in 2010 (23%). More females (31.5%) than males (17.5%) had seriously considered committing suicide and this was also the case in 2010.

Almost one fifth (18.5%) of adolescents had actually attempted suicide in 2017, which was less than those that had done so in 2010 (22%). Similar to the pattern observed in those who considered attempting suicide, there were more females (20.6%) that actually attempted suicide than males (16.1%).

There was no difference in the overall proportion of adolescents who had no close friends in 2017 (8.8%) when compared to those in 2010 (8.8%). In both instances, more males had indicated that they had no close friends.
ADOLESCENT HEALTH

SUBSTANCE USE AMONG JAMAICAN ADOLESCENTS BETWEEN 13 AND 15 YEARS

- In 2017, approximately half (45.1%) of adolescents aged 13 to 15 years had at least one drink of alcohol.
- More males (54.8%) were found to have consumed alcohol than females (36.1%).

- 13.1% of youths smoked cigarettes.
- More males (17.9%) smoked cigarettes than females (8.7%).
- 65.6% were exposed to second-hand smoke.
- More males (69.8%) than females (61.7%) were exposed to second-hand smoke.

- 12.9% of youths smoked marijuana.
- More males (16.8%) than females (9.2%) engaged in this activity.


Jamaica, Global School-based Student Health Survey, 2017. (Fact Sheet). Images from: www.vecteezy.com
Approximately one half (48.1%) of adolescents 13 to 15 years indicated that they were sexually active, with 58.8% having sexual intercourse before age 14, and 64.5% using condoms. More males than females reported being sexually active (67.4%), having sex before age 14 (75.4%) and having sex with two or more persons (48.5%). However, more females (65.6%) reported using condoms.

Reports of ever having sexual intercourse increased with higher grade levels. The proportion reporting sexual intercourse with two or more persons also increased with grade level. Between 61% and 70% of adolescents reported use of a condom at last sexual encounter. A higher proportion of adolescents in lower grades reported having sex before age 14.

According to Wilks et al. (2006) ‘resiliency can be defined as any characteristic or factor which protects a person from engaging in risky behaviour. Protective factors include parental and family caring, parental connectedness, parental expectations for school performance and parental availability’. The Youth Risk and Resiliency Behaviour Surveys have indicated the factors which were protective for risk behaviours such as sexual activity, drug use, involvement in fights and physical violence among Jamaican children and adolescents.

### PROTECTIVE FACTORS OCCURRING INSIDE AND OUTSIDE THE HOME ASSOCIATED WITH LOWER RISK BEHAVIOURS IN:

#### ADOLESCENTS 10 – 15 YEARS

- **Expects you to follow the rules is associated with:**
  - Lower drug use (males).

- **Is interested in your school work is associated with:**
  - Lower sexual activity (females)
  - Lower drug use (females)
  - Lower involvement in fight/attack (females)
  - Lower drunkenness (males)

- **Talks with you about problems is associated with:**
  - Lower drug use (both sexes)
  - Lower involvement in fight/attack (males)

- **Listens when you have something to say is associated with:**
  - Lower drug use (both sexes)
  - Lower involvement in fight/attack (males)

- **Always wants you to do your best is associated with:**
  - Lower sexual activity (females)
  - Lower drug use (males)
  - Lower involvement in fight/attack (females)

- **Believes you will be a success is associated with:**
  - Lower sexual activity (both sexes)
  - Lower involvement in fight/attack (both sexes)

#### ADOLESCENTS 15 – 19 YEARS

- **Caring relationships in home is associated with:**
  - Lower sexual activity (males)
  - Lower ganja use (both sexes)
  - Lower physical violence (females)

- **High expectations in home is associated with:**
  - Lower sexual activity (males)
  - Higher condom use (both sexes)
  - Lower ganja use (both sexes)

- **Caring relationships outside of home is associated with:**
  - Lower sexual activity (males)
  - Lower ganja use (both sexes)

- **High expectations outside of home is associated with:**
  - Lower sexual activity (males)
  - Lower ganja use (both sexes)

- **Someone who you trust is associated with:**
  - Lower ganja use (both sexes)

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Source: Data from Jamaican Youth Risk and Resiliency Behaviours Survey, 2005. School-based Survey on Risk and Resiliency Behaviours of 10 – 15 year olds

ADOLESCENT HEALTH
PROTECTIVE FACTORS FOR 10 TO 19-YEAR-OLD ADOLESCENTS

Despite the importance of protective factors in the home, the Global School Health Survey (2017) indicated that less than 50% of adolescents aged 13-15 years reported having a parent or guardian, spending time with them in the past month (42.2%), showing them affection (43.8%), understanding their problems (30.7%) or knowing what they were doing in their free time (39.4%). More females reported having a parent or guardian, spending time with them in the past month (44.4%), showing them affection (46.6%), and knowing what they were doing in their free time (42.4%).

REPORTED PARENTAL RELATIONSHIPS WITH ADOLESCENTS 13 TO 15 YEARS, JAMAICA

TEACHING YOUR CHILD RESPONSIBILITY
• Give your child chores to do. This will teach him/her responsibility and independence
• Teach him/her to accept responsibility for his/her improper behaviour and explain to him/her why he/she is being punished for it
• Teach your child proper manners, honesty and how to be respectful to everyone
• Do not allow your child to take gifts, food or rides from strangers.
• Teach your child how to love himself, his/her race/colour and culture
• Make sure that he/she completes his/her tasks/assignment including his/her homework and school projects

IMPROVING YOUR CHILD’S LEARNING
• Join the PTA
• Talk to your child and listen to him/her. Do not shun his/her ideas
• Monitor TV viewing, video/computer/telephone game playing and internet use
• Visit your child’s school regularly and not only when there is a problem
• Get to know your child’s teachers and peers
• Celebrate your child’s achievements and encourage him/her to do better when he/she has failed at a task. Remind him/her that you still love him/her
• Make sure that he/she completes all his/her assignments on time. Help him/her with those he/she is having problems with. DO NOT do them for him/her
• Ensure that your child joins a club or society and participate in extracurricular activities
• Teach your child to respect all persons

Source: Ministry of Education Youth and Culture: https://moey.gov.jm/node/257

* - Always/Most of the time (within the past month before the survey was conducted.
During 2017 about 68.4% of adolescents between 13 and 15 years drank carbonated beverages one or more times per day. A greater proportion of males (72%) than females (64.9%) drank carbonated beverages.

About 58.7% of adolescents ate food from a fast food restaurant one or more days per week in 2017. A greater proportion of females (61%) than males (55.9%) ate food from fast food restaurants.

In the 2017, Global School-based Student Health Survey, 23.8% of Jamaican adolescents between 13 and 15 years were found to have engaged in physical activity for at least 60 minutes per day on all 7 days during the 7 days before the survey was administered. More male (25.4%) were found have engaged in this level of physical activity than females (22.2%).

53.4% of Adolescents spent three or more hours per day sitting and watching television, playing computer games or talking with friends when not in school or while doing homework during a typical or usual day. More females (59.2%) than males (47.1%) expressed this type of sedentary behavior.

25.2% of Adolescents between 13 to 15 years attended physical education classes three or more days each week. More males (30.5%) than females (20.3%) attended physical education classes three or more days each week.

Source: Jamaica, Global School-based Student Health Survey, 2017 (Fact Sheet). Images from http://worldartsme.com
In 2000, the death rate in the 5 to 19 age group was 38.9 per 100,000 population. Sixteen years later, there was an increase in the death rate to 47.4 per 100,000 population.

The leading causes of death have changed over the 16-year period under review. In 2016, the number 1 and 2 causes of death in children 5 to 19 were assault and transport accidents respectively. Leukemia and diseases of the blood and blood-forming organs, excluding anaemias, ranked higher in 2000 than in 2016, moving from position 6 and 8 in 2000 to position 14 and 22 respectively in 2016.

**Leading Causes of Death in Jamaicans 5 to 19**

**2000**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Disease/Condition</th>
<th>Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All other external causes*</td>
<td>6.5</td>
</tr>
<tr>
<td>2</td>
<td>Diseases of the nervous system</td>
<td>2.7</td>
</tr>
<tr>
<td>3</td>
<td>Neoplasms excluding leukemia</td>
<td>2.0</td>
</tr>
<tr>
<td>4</td>
<td>Human Immunodeficiency Virus (HIV)</td>
<td>1.1</td>
</tr>
<tr>
<td>5</td>
<td>Pneumonia</td>
<td>1.1</td>
</tr>
<tr>
<td>6</td>
<td>Leukemia</td>
<td>1.0</td>
</tr>
<tr>
<td>7</td>
<td>Anaemias</td>
<td>0.9</td>
</tr>
<tr>
<td>8</td>
<td>Diseases of the blood and blood-forming organs</td>
<td>0.7</td>
</tr>
<tr>
<td>17</td>
<td>Assault</td>
<td>0.4</td>
</tr>
<tr>
<td>24</td>
<td>Transport Accidents</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**2016**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Disease/Condition</th>
<th>Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assault</td>
<td>10.3</td>
</tr>
<tr>
<td>2</td>
<td>Transport Accidents</td>
<td>5.3</td>
</tr>
<tr>
<td>3</td>
<td>Diseases of the nervous system</td>
<td>4.0</td>
</tr>
<tr>
<td>4</td>
<td>All other external causes*</td>
<td>3.7</td>
</tr>
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<td>5</td>
<td>Neoplasms excluding leukemia</td>
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<td>7</td>
<td>Human Immunodeficiency Virus (HIV)</td>
<td>1.5</td>
</tr>
<tr>
<td>12</td>
<td>Pneumonia</td>
<td>0.9</td>
</tr>
<tr>
<td>14</td>
<td>Leukemia</td>
<td>0.7</td>
</tr>
<tr>
<td>22</td>
<td>Diseases of the blood and blood-forming organs</td>
<td>0.4</td>
</tr>
</tbody>
</table>

* All other external causes exclude transport accidents, falls, accidental drowning, exposure to smoke or fire, accidental poisoning, intentional self-harm and assault.

Assault and All other external causes include cases reported by the police but not yet registered by the Registrar General’s Department (RGD) for 2016.

Mortality Rate per 100,000 population.
Source: Registrar General’s Department (RGD).
ADOLESCENT HEALTH
BEST PRACTICE: TEEN HUB
HALF-WAY-TREE TRANSPORTATION CENTRE

The Teen Hub commenced operation in the Half Way Tree Transportation Centre in April 2017 and was formally launched in November 2017. This initiative was introduced as a response to negative behaviours, such as violence, truancy and risky sexual behaviours of adolescents being reported.

The Teen Hub provides a safe space for young people commuting the Kingston and St. Andrew and St. Catherine Metropolitan Areas to access a number of services. An average of 50 adolescents visit the hub daily. These teens can access the Internet and printers free of cost, to complete school assignments and receive counselling for interpersonal conflicts, stress and symptoms of depression.

SERVICES OFFERED
• Health care workers are assigned to conduct mental wellness and sexual and reproductive health clinics.
• Youth Empowerment Officers from the Ministry of Education, Youth and Information conduct career counselling and other programmes on designated days.
• A Clinical Psychologist from the Child Guidance Clinic provides group and individual counselling every Tuesday from 2-5 p.m.
• The National Family Planning Board has been providing HIV counselling and testing since the hub’s inception. They also arrange follow-up for any positive results that occur.

REACH
Approximately 4,800 young persons have accessed services from the Hub for the period January to September 2018.
• More than 4,000 have accessed skills-based HIV and pregnancy prevention education.
• 757 [Male 391, Female 366] have received HIV counselling and testing.
• 58 adolescents received mental health therapy.
• 12 adolescent advocates and peer mentors are being trained to generate feedback, provide input and deliver basic information among their peers.

LESSONS LEARNED
• Adolescents are not naturally drawn to health facilities; they require traditional as well as non-traditional approaches to access health care.
• Adolescents’ participation is critical in the design, plan and implementation of any programmes that affects them.
• The experience has underscored the need for access to those adolescents below 16 years requiring some services.
BASIC HEALTH INDICATORS FOR CHILDREN

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Jamaica (Available Year)</th>
<th>Latin America &amp; the Caribbean (Available Year)*</th>
<th>Barbados (Available Year)</th>
<th>Guyana (Available Year)</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Male</strong></td>
<td><strong>Female</strong></td>
<td><strong>Male</strong></td>
<td><strong>Female</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>73.7 (2017)</td>
<td>78.5 (2017)</td>
<td>72.6 (2017)</td>
<td>78.9 (2017)</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- Regional aggregates (i.e. ‘Latin America and the Caribbean’) for rates, ratios and proportions are weighted averages. The publication year for the data source is therefore used as the date for the estimate;
- Data from Guyana presents limitations of one or more of the following: coverage of maternal deaths and live births, differences in the maternal death definition, different denominators used or the analysis of only confirmed maternal deaths;
- For computation of public sector estimates: Physicians = Generalist Medical Practitioners and Specialist Medical Practitioners combined; Nurses = Nursing Professionals and Midwifery Professionals combined.

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