WEEKLY EPIDEMIOLOGY BULLETIN NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Series: 5 Keys to a Healthy Diet (1-3)



1) Breastfeed babies and young children

From birth to 6 months of age, feed babies exclusively with breast milk (i.e. give them no other food or drink), and feed them "on demand" (i.e. often as they want, day and night)
At 6 months of age, introduce a variety of

safe and nutritious foods to complement

breastfeeding, and continue to breastfeed until babies are 2 years of age or beyond.

Do not add salt or sugars to foods for babies and young children **Why?**

On its own, breast milk provides all the nutrients and fluids that babies need for their first 6 months of healthy growth and development. Exclusively breastfed babies have better resistance against common childhood illnesses such as diarrhoea, respiratory infections and ear infections. In later life, those who were breastfed as infants are less likely to become overweight or obese, or to suffer from



2) Eat a variety of foods

disease and stroke.

• Eat a combination of different foods, including staple foods (e.g. cereals such as wheat, barley, rye, maize or rice, or starchy tubers or roots such as potato, yam, taro or cassava), legumes (e.g. lentils, beans), vegetables, fruit and foods from

noncommunicable diseases, such as diabetes, heart

animals sources (e.g. meat, fish, eggs and milk) **Why?**

Eating a variety of whole (i.e. unprocessed) and fresh foods every day helps children and adults to obtain the right amounts of essential nutrients. It also helps them to avoid a diet that is high in sugars, fats and salt, which can lead to unhealthy weight gain (i.e. overweight and obesity) and noncommunicable diseases. Eating a healthy, balanced diet is especially important for young children's and development; it also



helps older people to have healthier and more active lives.

3) Eat plenty of vegetables and fruit

Eat a wide variety of vegetables and fruit

• For snacks, choose raw vegetables and fresh fruit, rather than foods that are high in sugars, fats or salt

Avoid overcooking vegetables and fruit as this can lead to the loss of important vitamins

When using canned or dried vegetables and fruit, choose varieties without added salt and sugars

Why?

Vegetables and fruit are important sources of vitamins, minerals, dietary fibre, plant protein and antioxidants. People whose diets are rich in vegetables and fruit have a significantly lower risk of obesity, heart disease, stroke, diabetes and certain types of cancer.

Source: https://www.who.int/nutrition/topics/5keys_healthydiet/en/

EPI WEEK 37



SYNDROMES

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CLASS 1 DISEASES PAGE 4



INFLUENZA

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DENGUE FEVER

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GASTROENTERITIS

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RESEARCH PAPER PAGE 8

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SENTINEL SYNDROMIC SURVEILLANCE



ETI

Map representing the

A syndromic surveillance system is good for early detection of and response to public health events.

Sentinel surveillance occurs when selected health facilities (sentinel sites) form a network that reports on certain health conditions on a regular basis, for example, weekly. Reporting is mandatory whether or not there are cases to report.

Jamaica's sentinel surveillance system concentrates on visits to sentinel sites for health events and syndromes of national importance which are reported weekly (see pages 2 -4). There are seventy-eight (78) reporting sentinel sites (hospitals and health centres) across Jamaica.



Weekly Visits to Sentinel Sites for Undefrentiated Fever All ages: Jamaica,

Weekly Threshold vs Cases 2019

REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER

Temperature of $>38^{\circ}C$ /100.4°F (or recent history of fever) with or without an obvious diagnosis or focus of infection.

1400

1200



Timeliness of Weekly Sentinel Surveillance Parish Reports for the Four Most Recent Epidemiological Weeks -Weeks 33 to 36

Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.

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FEVER AND NEUROLOGICAL

Temperature of >38°C /100.4°F (or recent history of fever) in a previously healthy person with or without headache and vomiting. The person must also have meningeal irritation, convulsions, altered consciousness, altered sensory manifestations or paralysis (except AFP).



FEVER AND

date.

HAEMORRHAGIC Temperature of >38°C

/100.4°F (or recent history of

fever) in a previously healthy

(bleeding) manifestation with

or without jaundice. Visits for

symptoms were reported in

person presenting with at least one haemorrhagic

Fever and Haemorrhagic

weeks 4 to 8 only, year to

FEVER AND JAUNDICE

previously healthy person

presenting with jaundice.

(or recent history of fever) in a

The epidemic threshold is used to confirm the emergence of an

using the mean reported cases per week plus 2 standard

deviations. Visits to sentinel

sites for Fever and Jaundice



2019 Epidemic Threshold

Weekly visits to Sentinel Sites for Fever and Haemorrhagic Symptoms 2019 vs Weekly Threshold; Jamaica



Weekly Visits to Sentinel Sites for Fever and Jaundice 2019 vs. Weekly Threshold



All clinical

sites

only, year to date.

NOTIFICATIONS-

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



Weekly Visits to Sentinel Sites for Fever and Neurological Symptoms 2019 vs.



CLASS ONE NOTIFIABLE EVENTS

Comments

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			Confirmed YTD		AFP Field Guides
	CLASS 1 EV	/ENTS	CURRENT YEAR	PREVIOUS YEAR	from WHO indicate that for an effective
ERNATIONAL EST	Accidental Poisoning		56	160	detection rates for
	Cholera		0	0	AFP should be 1/100,000 population under 15 years old (6 to 7) cases annually. ———— Pertussis-like syndrome and Tetanus are clinically confirmed classifications.
	Dengue Hemorrhagic Fever*		NA	NA	
	Hansen's Disease (Leprosy)		0	0	
IER	Hepatitis B		11	33	
AL /I	Hepatitis C		2	5	
NATIONA	HIV/AIDS		NA	NA	
	Malaria (Imported)		0	2	
	Meningitis (Clinically confirmed)		18	37	
EXOTIC/ UNUSUAL	Plague		0	0	* Dengue Hemorrhagic Fever
H IGH MORBIDIT/ MORTALIY	Meningococcal Meningitis		0	0	data include Dengue related deaths;
	Neonatal Tetanus		0	0	
	Typhoid Fever		0	0	** Figures include
	Meningitis H/Flu		0	0	all deaths associated with pregnancy
SPECIAL PROGRAMMES	AFP/Polio		0	0	reported for the
	Congenital Rubella Syndrome		0	0	period. *** CHIKV IgM
	Congenital Syphilis		0	0	
	Fever and Rash	Measles	0	0	cases
		Rubella	0	0	
	Maternal Deaths**		44	49	FCK positive cases
	Ophthalmia Neonatorum		161	217	-
	Pertussis-like syndrome		0	0	-
	Rheumatic Fever		0	0	-
	Tetanus		0	0	
	Tuberculosis		33	57	
	Yellow Fever		0	0	
	Chikungunya ^{***}		1	10	
	Zika Virus ^{****}		0	0	NA- Not Available



5 NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



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NATIONAL SURVEILLANCE UNIT **INFLUENZA REPORT**



September 8 – September 14, 2019 Epidemiological Week 37

	EW 36	YTD
SARI cases	4	370
Total Influenza positive Samples	1	368
Influenza A	1	326
H3N2	0	91
H1N1pdm09	0	226
Not subtyped	1	6
Influenza B	0	42
Parainfluenza	0	6

Epi Week Summary

During EW 37, 1 case of influenza specifically Influenza A was detected. Percent positivity remained low.

During EW 37, 4 (four) SARI admissions were reported.



Jamaica: Percentage of Hospital Admissions for Severe Acute



Caribbean Update EW 37

Influenza and SARI activity was low and continue to decrease in the sub-region. The Dominican **Republic continued to report low** influenza activity and increased **RSV** activity. In Puerto Rico, influenza-positive cases were slightly above the historical average, with influenza A(H3N2) predominance.

Distribution of influenza and subtype



6 All clinical sites

REPORTS- Detailed Follow up for all Class One Events

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SURVEILLANCE-
30 sites. Actively
pursued
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REPORT- 78 sites. Automatic reporting

Critical phase

Dengue Bulletin

September 8- September 14, 2019 Epidemiological Week 37

Epidemiological Week 37





Symptoms of Dengue fever



hypotension headache pleural effusion mouth and nose ascites bleeding gastrointestinal bleeding muscle and joint pains **Recovery phase** altered level of vomiting consciousness seizures itchina diarrhea slow heart rate

Suspected dengue cases for 2018 and 2019 versus monthly mean, alert, and epidemic thresholds



Points to note:

- ****figure as at September** 23, 2019
- 0 **Only PCR positive dengue** cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



RESEARCH PAPER

The Proposed Use of Basal Lactate as a Biochemical Marker for Type 2 Diabetes Development

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Objectives: Adiposity is a well-known indicator of the relative risk of type 2 diabetes mellitus development. While maintaining a low body fat percentage is integral in reducing the chance of diabetes development, basal lactate provides a more accurate and detailed insight on the progression of the metabolic disease. Research has proven that there is a marked increase in lactate concentration in patients with type 2 diabetes.

Method: Two groups were selected consisting of 19 athletes and 16 non-athletes. They were allowed to fast overnight then a resting (Basal) lactate concentration was measured using the Lactate Plus analyser. Their body fat percentages were then measures using the BodyMetrix machine as well as the Harpenden skinfold caliper.

Results: The mean basal lactate and mean body fat percentage for the athletes were $1.53 \text{mmol/L} \pm 0.282 \text{mmol/L}$ and $8.29\% \pm 5.42\%$ respectively while for the non-athletes $1.69 \text{mmol/L} \pm 0.205 \text{mmol/L}$ and $10.06\% \pm 4.3\%$ respectively. The correlation between basal lactate and body fat percentage was analysed and there was a significant positive correlation found for the athletes group with P=0.005. This relationship was also validated in the non-athletes group with P=0.026.

Conclusion: Given the previous studies done on lactate production influenced by diabetes mellitus and the correlation now found between basal lactate and adiposity, monitoring lactate production can provide fast and accurate diagnostics related to carbohydrate metabolism in vivo. Further study is in progress to provide the optimal and diagnostic ranges for basal lactate.



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NOTIFICATIONS All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued

