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

<u>Leprosy</u>

Introduction

Leprosy is an infectious disease caused by Mycobacterium leprae, an acid-fast, rod-shaped bacillus. The disease mainly affects the skin, the peripheral nerves, mucosa of the upper respiratory tract, and the eyes. Leprosy is curable and treatment in the early stages can prevent disability.

Key facts

1-Clinical symptom diagnosis: (anesthesia, nerve enlargement, and characteristic skin lesions). 2-Slit-skin smears: Ziehl Neelson staining of skin smear 3-Skin biopsy. 4-Nerve biopsy 5-Lepromin test

- Leprosy is an infectious disease caused by a bacillus, Mycobacterium leprae.
- M. leprae multiplies slowly and the incubation period of the disease, on average, is 5 years.
- Symptoms may occur within 1 year but can also take as long as 20 years or even more to occur.
- The disease mainly affects the skin, the peripheral nerves, mucosa of the upper respiratory tract, and the eyes.
- Leprosy is curable with multidrug therapy (MDT).
- Leprosy is likely transmitted via droplets, from the nose and mouth, during close and frequent contact with untreated cases.
- Untreated, leprosy can cause progressive and permanent damage to the skin, nerves, limbs, and eyes.
- . There were 208 619 new leprosy cases registered globally in 2018, according to official figures from 159 countries from the 6 WHO Regions.
- Based on 184 212 cases at the end of 2018, prevalence rate corresponds to 0.2/10 . 000.



Brief history of the disease and treatment

Leprosy is an age-old disease, described in the literature of ancient civilizations. Throughout history, people afflicted have often been ostracized by their communities and families.

Although leprosy was managed differently in the past, the first breakthrough occurred in the 1940s with the development of the medicine dapsone. The duration of treatment lasted many years, often a lifetime, making compliance difficult. In the 1960s, M. leprae started to

develop resistance to dapsone, the only known anti-leprosy medicine at that time. In the early 1960s, rifampicin and clofazimine were discovered and subsequently added to the treatment regimen, which was later labelled as multidrug therapy (MDT).

In 1981, WHO recommended MDT. The currently recommended MDT regimen consists of medicines: dapsone, rifampicin and clofazimine. This treatment lasts for six months for paucibacillary and 12 months for multi-bacillary cases. MDT kills the pathogen and cures the patient.

Since 1995 WHO has provided MDT free of cost. Free MDT was initially funded by The Nippon Foundation, and since 2000 it is donated through an agreement with Novartis until at least 2020.

Elimination of leprosy as public health problem (defined as a registered prevalence of less than 1 case per 10 000 population) was achieved globally in 2000. More than 16 million leprosy patients have been treated with MDT over the past 20 years.





SYNDROMES

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SENTINEL SYNDROMIC SURVEILLANCE





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

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.



REPORTS FOR SYNDROMIC SURVEILLANCE



Released January 3, 2020

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

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 weeks 4 to 8, 39,41,42, 44, 46

person presenting with at

least one haemorrhagic

Fever and Haemorrhagic

FEVER AND JAUNDICE

previously healthy person

presenting with jaundice.

Temperature of $>38^{\circ}C/100.4^{\circ}F$

(or recent history of fever) in a

The epidemic threshold is used

to confirm the emergence of an

epidemic in order to implement control measures. It is calculated

using the mean reported cases

per week plus 2 standard deviations. Visits to sentinel

sites for Fever and Jaundice

were reported in weeks 7, 10,

33, 43 and 47 only, year to date.

and 49 year to date.

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

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





NOTIFICATIONS-All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued





ISSN 0799-3927

Comments

CLASS ONE NOTIFIABLE EVENTS

			Confirmed YTD		AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for 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.
	CLASS 1 EVENTS		CURRENT YEAR	PREVIOUS YEAR	
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		106	184	
	Cholera		0	0	
	Dengue Hemorrhagic Fever*		NA	NA	
	Hansen's Disease (Leprosy)		0	0	
	Hepatitis B		24	90	
	Hepatitis C		2	9	
	HIV/AIDS		NA	NA	
	Malaria (Imported)		2	6	
	Meningitis (Clinically confirmed)		23	37	
EXOTIC/ UNUSUAL	Plague		0	0	* Dengue Hemorrhagic Fever
H IGH MORBIDIT/ MORTALIY	Meningococcal Meningitis		0	0	data include Dengue related deaths; ** Figures include all deaths associated with pregnancy
	Neonatal Tetanus		0	0	
	Typhoid Fever		0	0	
	Meningitis H/Flu		0	0	
RAMMES	AFP/Polio		0	0	reported for the
	Congenital Rubella Syndrome		0	0	perioa.
	Congenital S	yphilis	0	0	*** CHIKV IgM
	Fever and Rash	Measles	0	0	cases Sika **** Zika PCR positive cases
		Rubella	0	0	
SOG	Maternal De	aths ^{**}	60	61	
SPECIAL PR	Ophthalmia Neonatorum		222	302	
	Pertussis-like syndrome		0	0	
	Rheumatic Fever		0	0	
	Tetanus		0	0	
	Tuberculosis		64	79	
	Yellow Fever		0	0	
	Chikungunya***		7	10	
	Zika Virus****		0	1	NA- Not Available



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**

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EW 51

December 15– December 21, 2019 Epidemiological Week 51

	EW 51	YTD
SARI cases	13	528
Total		
Influenza	0	178
positive	U	470
Samples		
Influenza A	0	434
H3N2	0	<i>198</i>
H1N1pdm09	0	228
Not subtyped	0	5
Influonzo R	0	11
Influenza D	0	77
Parainfluenza	0	7

Epi Week Summary

During EW 51, 13 (thirteen) SARI admissions were reported.







Caribbean Update EW 50

Influenza activity increased in some countries of the sub-region. In Cuba influenza activity continued to increase with influenza B viruses predominance; SARI cases decreased below levels observed in previous seasons for the same period. Influenza activity decreased to low levels of intensity in Jamaica with influenza A(H3N2) virus predominance and influenza A(H1N1)pdm09 virus co-circulating; SARI cases were at low levels



NOTIFICATIONS-6 All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



Dengue Bulletin

December 15- December 21, 2019 Epidemiological Week 51

Epidemiological Week 51





Symptoms of

Reported suspected and confirmed dengue with symptom onset in weeks 1-51 2019 2019 2018 EW YTD YTD 51 **Total Suspected Dengue** 750 1 7414 Cases Lab Confirmed Dengue 0 137 23 cases CONFIRMED

Points to note:

Dengue Related Deaths

**figure as at December 23, 2019

0

21

4

- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.

Errata

<u> Dengue EW 49 2019 –</u> There were *79 Lab confirmed Dengue cases at EW 49 2019 YTD. (146 represented number for Total 2018 and 2019 YTD combined)

Dengue EW 50 2019 - There were *125 Lab confirmed Dengue cases at EW 50 2019 YTD. (193 represented number for Total 2018 and 2019 YTD combined)

Dengue fever Febrile phase Critical phase sudden-onset fever hypotension headache pleural effusion ascites mouth and nose bleeding gastrointestinal bleeding muscle and joint pains Recovery phase altered level of vomiting consciousness seizures rash itchina diarrhea slow heart rate

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



All clinical sites

NOTIFICATIONS-

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued



RESEARCH PAPER

ABSTRACT

Title: "Anthropometry and food frequency in chronic non-communicable disease: associations in a clinic population"

Authors: S. Robinson, S. Dawson E-mail address: stephenrobinson29@yahoo.com

Objective:

To investigate the relation of body mass index (BMI) and waist circumference (WC) to frequency of consumption of commonly consumed foods, in patients enrolled at a Type V Health Centre in Kingston.

Method:

Twenty -four adult patients (22 females) attending the CNCD Clinic were conveniently selected for the study, with a cross-sectional analysis being conducted on these patients. Participants were selected if they were diagnosed with at least one CNCD. Their weights, heights, and waist circumferences were measured and data on the frequency of consumption of selected foods acquired utilizing an administered questionnaire. The main outcome measure was a correlation between anthropometry and food frequency.

Results:

Of the 24 subjects, 23 had a BMI >25.0 with 22 having a waist circumference exceeding the recommended limit (Females= 89 cm and Males = 101 cm). Mean BMI was 34.3 ± 7.4 with mean WC being 104.9 ± 17.7 cm.

Neither BMI nor WC was significantly associated with frequency of consumption of any food item from the different Food Groups, but positive correlations were identified between BMI and age (p<0.0001), and BMI and WC (p=0.00051).

Conclusion:

No statistically significant associations were found between BMI, Waist Circumference and food frequency in this population. A follow-up study (larger sample size, other food intake measures) is recommended to demystify whatever link may exist between anthropometry and food intake. Alongside BMI measurements, WC could be used routinely in the nutritional assessment of CNCD patients at Health facilities.



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All clinical sites



INVESTIGATION REPORTS- Detailed Follow up for all Class One Events



HOSPITAL ACTIVE SURVEILLANCE-30 sites. Actively pursued

