

Current Health Event

Meningitis in Lebanon

The surveillance Unit, Ministry of Public Health (MOPH), Lebanon reviewed the seasonal distribution and causative pathogens of meningitis in Lebanon during the last three years: 2011-2013.

Editorial note:

Regardless of the causative organism (bacterial or viral), all suspected cases of meningitis should be reported to the MOPH immediately within 24 hours. Meningitis surveillance aims to measure and monitor the occurrence of meningitis, in order to identify bacterial meningitis that requires immediate corrective measures, to detect outbreaks, and to evaluate control programs.

In 2013, 204 cases were reported to the MOPH, with an annual incidence of 4.6/100000 inhabitants. 17 deaths were also reported. Surveillance data indicated that during 2000 and 2013, there was an increase in the annual incidence of meningitis from 1.5 to 4.6 per 100,000. The lowest incidence has been consistently reported during December-January (0.2), and the highest during June and July (0.8) (see graph).

Among the reported cases, 75% were due to bacterial pathogens, 13% were aseptic (most likely viral) and 12% were unspecified. Bacterial causes include:

- *Neisseria meningitidis*: 6 cases were documented as due to the meningococcal agent, from Mount-Lebanon and the North. The annual incidence was 0.14/100000. No cluster was detected. The case fatality rate CFR was 50%.
- *Haemophilus influenzae*: 1 case was reported from the South, aged 19 years. The annual incidence was 0.02/100000.
- *Streptococcus pneumoniae*: 18 cases were reported almost from all Lebanon. The annual incidence was 0.41/100000. The CFR was 22%. One case reported sequelae.

Figure 1: Monthly incidence of reported meningitis, Lebanon, 2011-2013



In Lebanon, *Neisseria meningitidis* is causing sporadic cases. Immediate actions include providing chemoprophylaxis to close contacts. Vaccination is indicated for confirmed outbreaks and for persons travelling to high risk areas (Kingdom of Saudi Arabia during Hajj season, African meningitis belt countries).

Do you now that:

- ♦ *Haemophilus influenzae b* is included in the national vaccination calendar since 2003.
- ♦ *Streptococcus pneumoniae* vaccine, already administered in the private sector, will be available in the public sector in 2014-2015.

Case Definitions for Meningococcal infection:

- **A Suspected Case** of meningococcal meningitis: A case of meningitis or septicaemia with petechial or purpurial rash.
- **A Probable Case:** a case of meningitis or a suspected case of meningococcal disease with gram-negative diplococci; or ongoing epidemic and epidemiological link to a confirmed case.
- **Confirmed case:** a suspected or probable case of meningococcal disease with isolation of *Neisseria meningitidis* from normally sterile fluids; or detection of *N. meningitidis* antigens in CSF; or positive test with PCR.

Cumulative Notifiable diseases in Lebanon (Syrian)

Disease	2013 Cumul	2014 Cumul*	Feb	Mar*
Vaccine Preventable Diseases				
Polio	0(0)	0(0)	0(0)	0(0)
Acute Flaccid Paralysis	34(7)	7(3)	2(0)	2(1)
Measles	1760(232)	83(30)	42(15)	20(4)
Mumps	14(2)	11(6)	5(4)	4(1)
Pertussis	59(9)	19(6)	11(5)	0(0)
Rabies	1(1)	0(0)	0(0)	0(0)
Rubella	27(1)	0(0)	0(0)	0(0)
Tetanus	4(0)	0(0)	0(0)	0(0)
Viral Hep B	141(8)	36(3)	16(2)	6(1)
Water/Food Borne Diseases				
Brucellosis	189(12)	21(0)	9(0)	2(0)
Hydatid cyst	13(3)	4(0)	2(0)	0(0)
Typhoid Fever	407(21)	32(0)	19(0)	4(0)
Viral Hep A	1551(220)	330(51)	140(22)	43(4)
Other Diseases				
Leishmaniasis	1033(1032)	217(216)	62(62)	44(44)
Meningitis	204(24)	32(3)	19(1)	0(0)
Viral Hep C	103(4)	17(0)	9(0)	1(0)

Source: Ministry of Public Health, Lebanon
* to date