

Communicable disease update & Typhoid fever cluster- November 2015

Ministry of Public Health
Epidemiological Surveillance Program
Bekaa office

Communicable disease update, Bekaa, November 2015 (up to Nov25)

- 2 cases of measles in Baalback
 - Lebanese
 - Samples collected
- 9 cases of brucellosis
- 17 cases of hepatitis A
- 24 cases of typhoid fever

Typhoid fever

Typhoid fever

- Bacterial disease
- Symptoms:
 - Insidious onset of sustained fever, headache, malaise, anorexia, relative bradycardia, splenomegaly, nonproductive cough in the early stage of the illness
 - Rose spots on the trunk in 25% of white-skinned patients
 - Constipation more often than diarrhea in adults

Typhoid fever

- Clinical picture varies:
 - From mild illness with low-grade fever
 - to severe clinical disease with abdominal discomfort and multiple complications
 - e.g. intestinal hemorrhage or perforation (about 1% of cases) especially late in untreated cases
- Case fatality rate:
 - 10-20% in the pre-antibiotic era
 - 1% with prompt antimicrobial therapy

Typhoid fever

- Mode of transmission:
 - Ingestion of food and water contaminated by feces and urine of patients and carriers
 - Person-to-person transmission
- Incubation period:
 - 3 days to over 60 days
 - Usual range 8-14 days

Typhoid fever: Preventive measures

- Promoting hand washing, good food handling practices
- Dispose of human feces safely
- Provide safe drinking water

Typhoid fever: Diagnosis

- The causal agent can be isolated from blood, stool and bone marrow.
- Serological tests based on agglutinating antibodies (Widal) are generally of little diagnostic value because of limited sensitivity and specificity

Typhoid fever: Reporting in Lebanon

- Typhoid fever is a mandatory notifiable disease
- To be reported to the Ministry of Public Health
- Following the case definitions
- Using an individual data form
- Lab test results to be specified or provided with the reporting form

Reporting form



الجمهورية اللبنانية
وزارة الصحة العامة

إستمارة إبلاغ عن مرض إنتقالي

الأمراض التي تبلغ فوراً / Immediately Reportable Cases
Clinical cases should be reported within 24 hours

☐ الشلل الرخو الحاد / Acute Flaccid Paralysis
Polio, Myelitis, Guillain Barre, Myositis, Neuritis ...

☐ الجذام / Anthrax

☐ الكوليرا / Cholera

☐ الخناق / Diphtheria

☐ تسمم غذائي / Food Poisoning

☐ الحميات النزفية / Hemorrhagic Fevers
Ebola-Marburg, Dengue, Crimean Congo HF, Lassa, Yellow fever ...

☐ أنفلونزا ناجمة عن نميط جديد / Influenza new virus subtypes
Avian influenza A(H5N1), A(H7N9) ...

☐ Invasive Coronavirus infection:
SARS, MERS/nCoV

☐ Invasive Meningococcal disease

☐ الحصبة / Measles

☐ التهاب السحايا (All agents) / Meningitis
Including West Nile fever ...

☐ أبو كعب / Mumps

☐ الساهوق / Pertussis

☐ الطاعون / Plague

☐ الكلب - السعار / Rabies

☐ الحصبة الألمانية / Rubella

☐ الكزاز الوليدي / Neonatal Tetanus

☐ الكزاز / Tetanus

☐ حدث غير عادي أو غير متوقع / Unusual or unexpected event
Specify:

الأمراض التي تبلغ أسبوعياً / Weekly Reportable Cases
Laboratory-confirmed

☐ بيلهارسيا / Bilharzia

☐ الحمى المالطية / Brucellosis

☐ كروتسفيلد-جاكوب / Creutzfeldt-Jacob Disease

☐ السيلان / Gonorrhea

☐ التهاب الكبد الفيروسي / Hepatitis A, B, C, D, E

☐ الكيسيات المائية / Hydatid Cyst

☐ التهاب معوي / Intestinal Infection
Amoebiasis, Campylobacter, E. coli, Giardiasis, Rotavirus, Salmonellosis, Shigellosis ...

☐ داء الفيلقية / Legionellosis

☐ داء الليشمانيات / Leishmaniasis

☐ الجذام / Leprosy

☐ الملاريا / Malaria

☐ السيلان / Syphilis

☐ الحميات التيفية / Typhoid fever

إن حالات السل أو التدرن / Tuberculosis تبلغ على وثائق خاصة وترسل إلى البرنامج الوطني لمكافحة التدرن

إن حالات السيدا / HIV تبلغ على وثائق خاصة وترسل في ظرف مختوم مباشرة إلى البرنامج الوطني لمكافحة السيدا.

إسم المريض (إسم الثلاثي)، إسم الأب، إسم الشهرة:

الجنسية: ☐ مقيم ☐ زائر

تاريخ الولادة:

الجنس: ☐ ذكر ☐ أنثى

الوضع التحصيني: (للمرض المبلغ عنه)
☐ ملفح ☐ غير ملفح

عدد الجرعات:

البلدة/الحي:

المحافظة/القضاء:

رقم الهاتف:

تاريخ ظهور عوارض المرض:

تاريخ تشخيص المرض:

هل دخل المريض المستشفى: ☐ لا ☐ نعم

إسم المستشفى:

تاريخ دخول المستشفى:

هل من تشخيص مخبري: ☐ لا ☐ نعم

إذا نعم، حدد:

وجود حالات مماثلة في محيط المريض: ☐ لا ☐ نعم

يمارس المريض مهنة طبية/صحية: ☐ لا ☐ نعم

إسم المستشفى/المركز الصحي/المختبر/عيادة خاصة/غيره:

العنوان:

الهاتف:

إسم وصفة المبلغ:

التاريخ: / / التوقيع

في الحالات التي تبلغ فوراً إضافة إلى ملء الوثيقة يجب الإتصال مباشرة وخلال 24 ساعة ببرامج الترصد الوبائي في بيروت والمناطق.
هاتف 01/614194 فاكس 01/610920

Reporting

- Cases to be reported to the MOPH-Epidemiological Surveillance Program
- Individual cases to be reported on a weekly basis
- Cluster of cases to be reported immediately
- Forms to be sent
 - To caza offices by hand or by fax:
 - Zahle: 08/809147
 - Baalback: 08/372309
 - West Bekaa: 08/663021
 - Rashaya: 08/592451
 - Hermel: 08/201340
 - Or by email: mophesubekaa@gmail.com

Typhoid fever: MOPH case definitions

- **Suspected case:** A clinically compatible case as reported by a physician. The clinical presentation may vary from a mild illness with low-grade fever and malaise to a severe picture of sustained fever, diarrhoea or constipation, malaise, anorexia, severe headache, splenomegaly and relative bradycardia. Intestinal ulceration can produce intestinal haemorrhage or perforations.
- **Probable case:** Case with acute fever (at least 38° C) during 3 days or more with positive serodiagnostic or antigen detection test but without isolation of *Salmonella enterica* Typhi ou Paratyphi. Widal test is considered as positive if the title is at least 1/160.
- **Confirmed case:** case with acute fever (at least 38° C) during 3 days or more with laboratory confirmation through isolation of *Salmonella enterica* serovar Typhi ou Paratyphi (new nomenclature) from clinical specimens: blood, bone marrow, stool...

Typhoid fever: MOPH case definitions

- **Suspected case:**

- A clinically compatible case as reported by a physician.

- **Probable case:**

- Suspected case
- with positive serodiagnostic or antigen detection test but without isolation of *Salmonella enterica* Typhi ou Paratyphi. Widal test is considered as positive if the title is at least 1/160.

- **Confirmed case:**

- Suspected or probable case
- with laboratory confirmation through isolation of *Salmonella enterica* serovar Typhi ou Paratyphi (new nomenclature) from clinical specimens: blood, bone marrow, stool...

Case definitions

- Available for all diseases
- Published on the ministry website

Case definitions

← ↻ www.moph.gov.lb/pages/home.aspx

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- Ebola Outbreak 2014
- Food Safety
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Current Year

Past Years

Poliomyelitis

Meningitis

Measles

Rubella

Avian Influenza

Rabies Exposure

Cancer

Sentinel

Absenteeism

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Dispensary-based

ICU surveillance

Novel Coronavirus (MERS-CoV)

Hospital Mortality Surveillance

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بس مفعول لنسب الصورة الشعبية
ذكرها مرة بالسنة

Faour Receives
s from the Arab Federation
tries

تلقى وزير الصحة العامة وائل ابو فاعور برفقة من
العربي للصناعات الغذائية الدكتور هيثم الجفان، هذا
الغذاء، ومما جاء في البرقية: "يهديكم التحك العرب

Health Clinics" in Ashrafieh

Case definitions



Sessions and Seminars

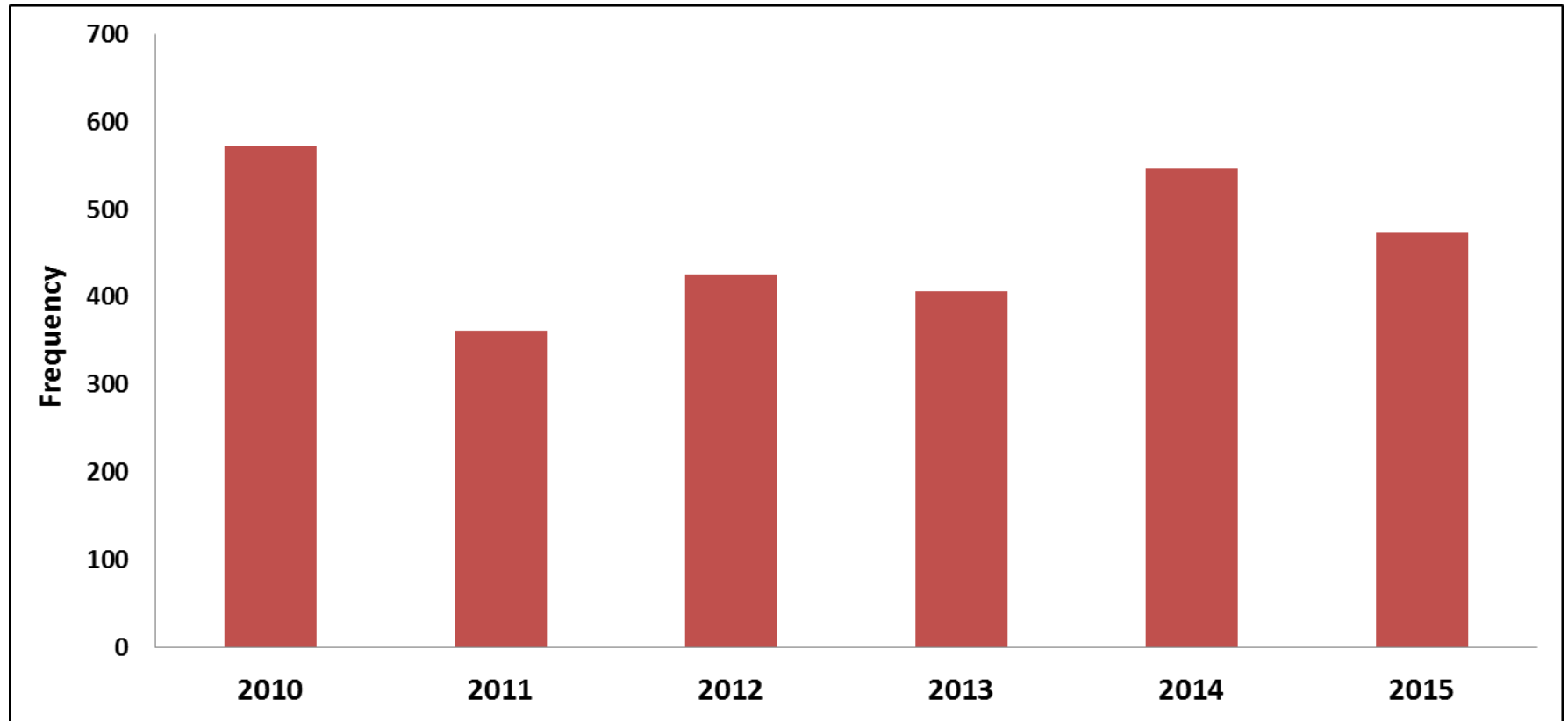
Reporting Forms

- Communicable disease reporting form pdf, doc
- Hospital zero-reporting form
- Rash reporting form (measles and rubella)
- Meningitis reporting form
- Dispensary reporting form (pdf, doc)
- Hospital ICU reporting form
- Hospital causes of deaths reporting form
- School absenteeism reporting form
- Polio / acute flaccid paralysis reporting form
- Polio / acute flaccid paralysis follow up form
- Laboratory surveillance weekly form
- Chemical incident release - patient reporting form
- Rapid Survey on Antidotes Form

Case Definitions

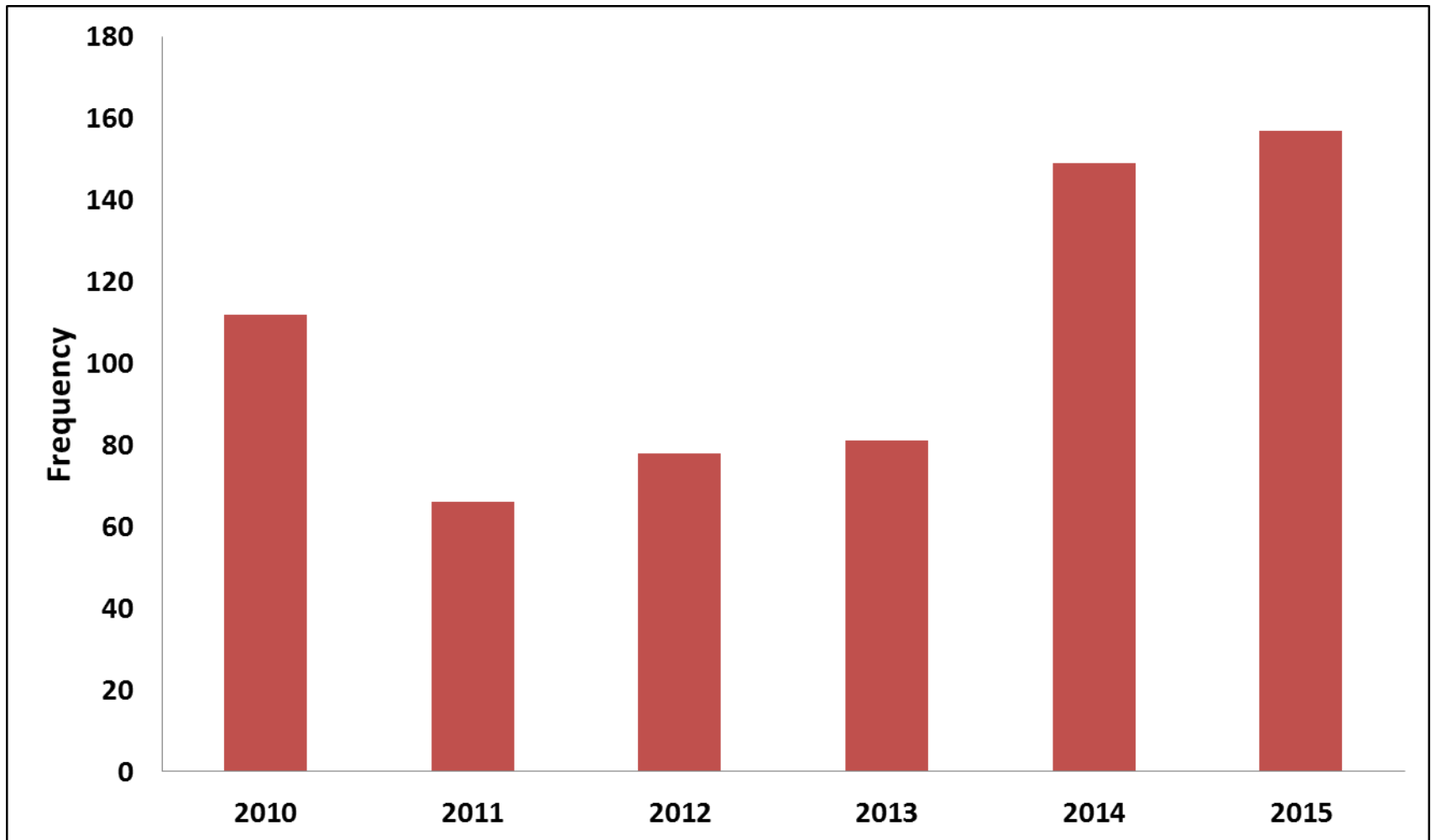
- Acute poliomyelitis
- Bilharziasis
- Brucellosis
- Cholera
- Creutzfeld Jakob Disease
- Creutzfeld Jakob Disease, new variant
- Diphtheria
- Dysentery
- Hemorrhagic fever
- Hemorrhagic fever: Ebola
- Leishmaniasis: cutaneous
- Leishmaniasis: visceral
- Leprosy
- Measles
- Meningitis
- Meningitis: Haemophilus influenza b
- Meningitis: Neisseria meningitidis
- Mumps
- Pertussis
- Plague
- Rubella
- Rubella, Congenital Rubella Syndrome
- Tetanus
- Tetanus neonatorum
- Trichiniasis
- Tuberculosis
- Typhoid fever
- Viral hepatitis A
- Viral hepatitis B
- Viral hepatitis C
- Viral hepatitis D
- Viral hepatitis E
- Yellow fever

Reported typhoid fever cases, Lebanon, Jan 2010-Nov 2015

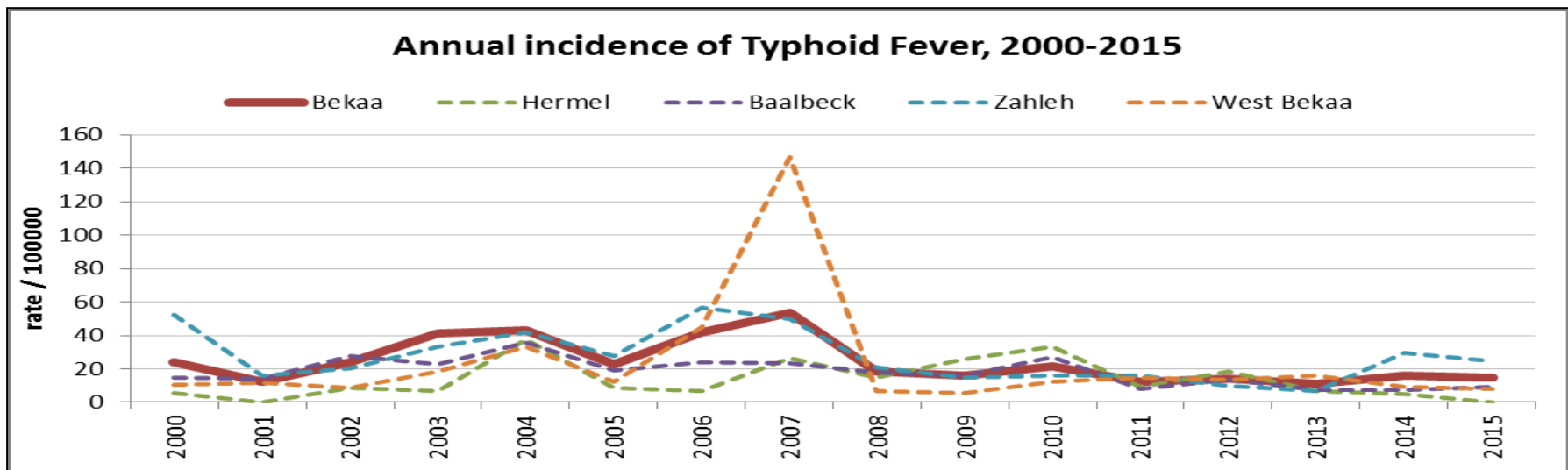
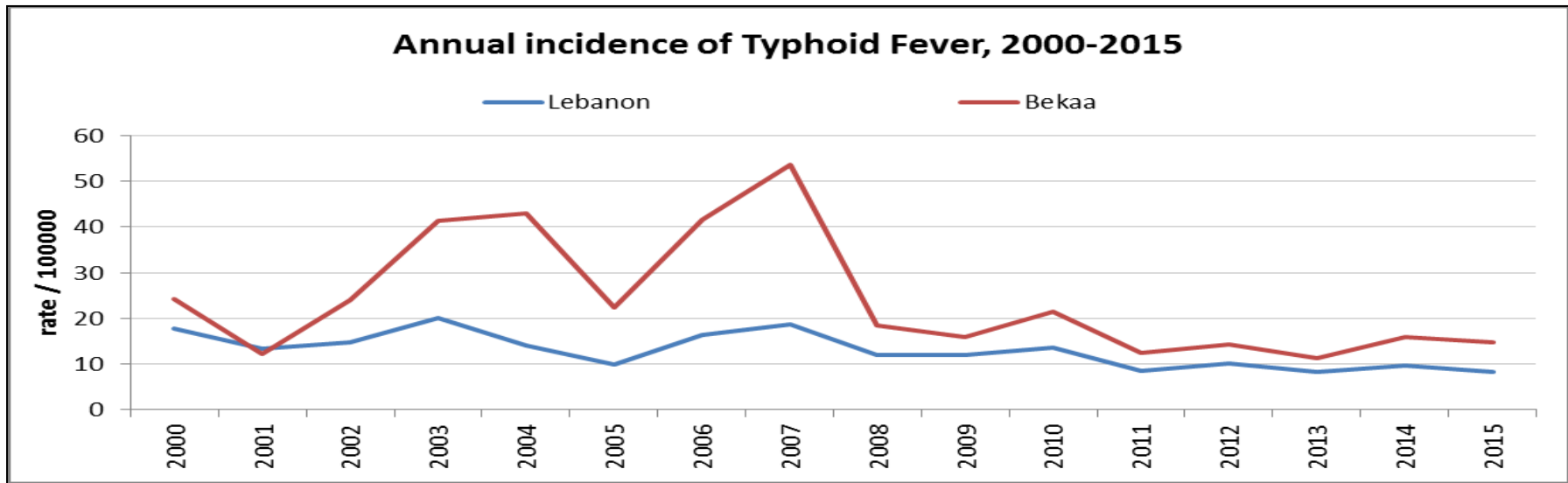


- Typhoid fever is endemic in Lebanon

Reported typhoid fever cases, Bekaa, Jan 2010-Nov 2015



Incidence rate of typhoid fever, Bekaa, Jan 2010-Nov 2015

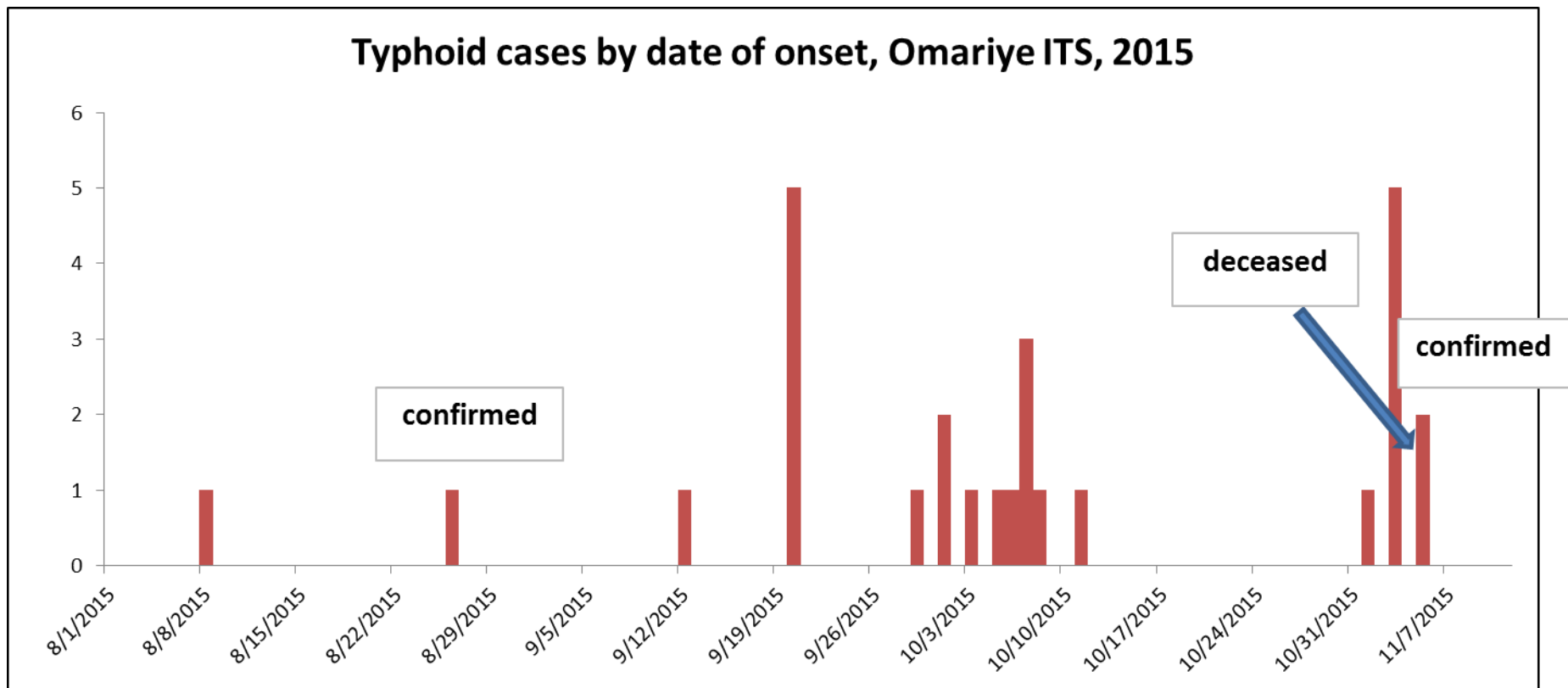


Reported typhoid fever cases, Bekaa, January -Nov 2015

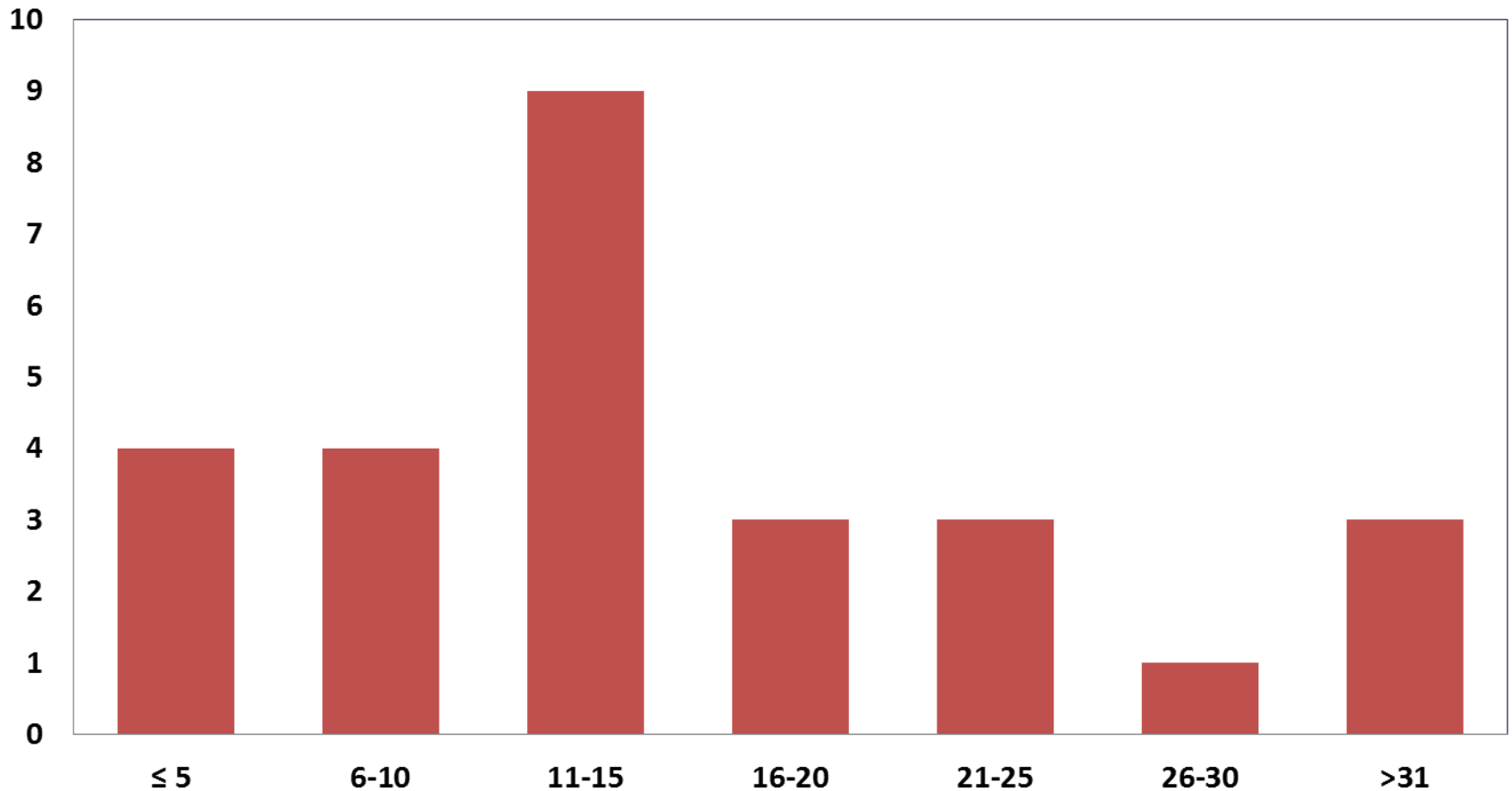
- 157 cases:
 - 27% Syrian
 - 62% in Zahleh
- A cluster of probable typhoid fever
 - Place: Omariye ITS 008-Zahle
 - Time: August-November 2015
 - Complication: one death of a girl with typhoid (cause of death unclear)
- A cluster of suspected typhoid fever
 - Place: in Mouhamad Rached ITS 055-Zahle
 - Time: June 2015

Typhoid fever cluster, Omariye ITS 008,2015

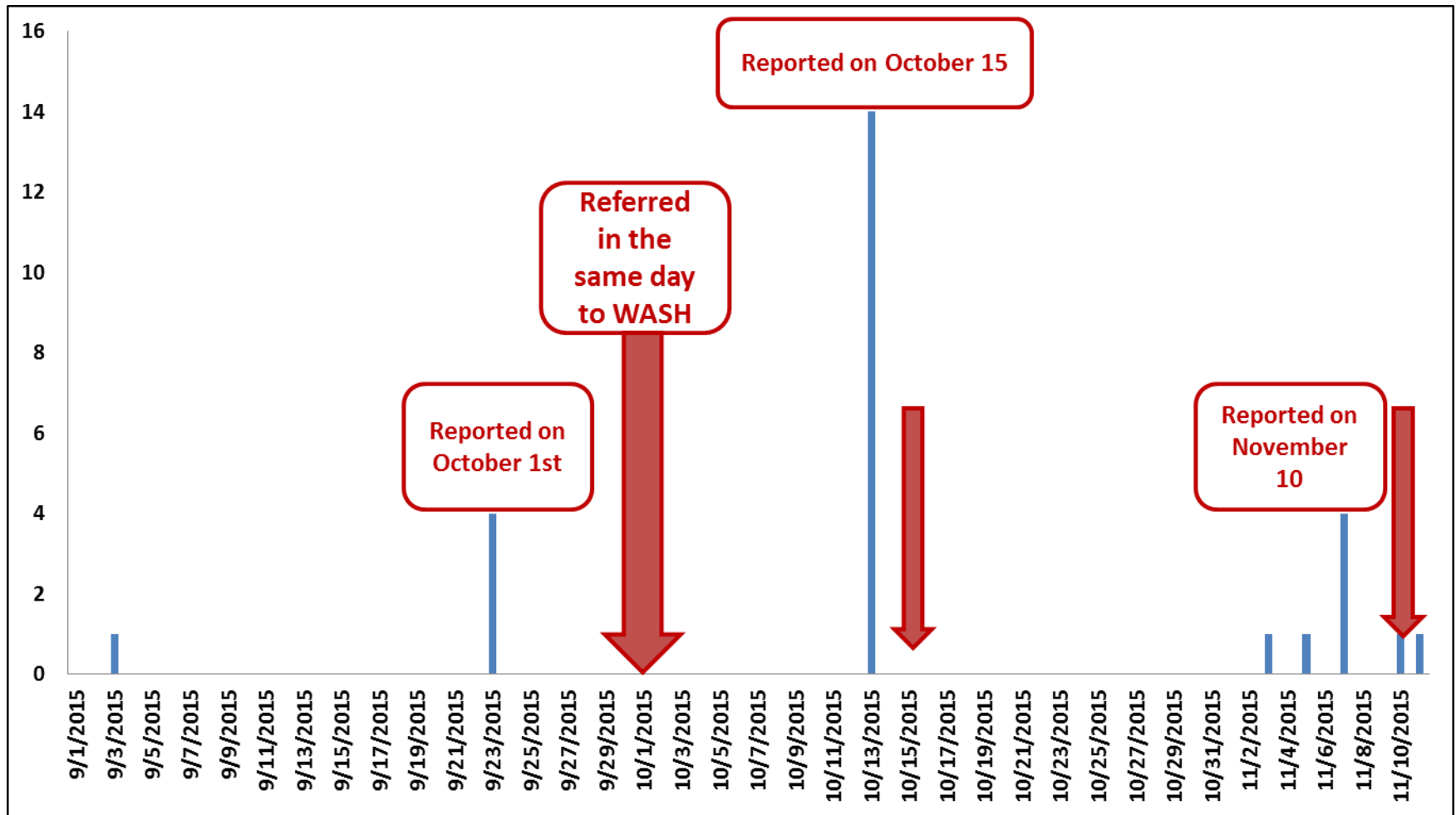
- 27 cases: 2 confirmed, 25 probable
- One death: date of onset unknown (reporting date was used)



Distribution of typhoid fever cases by age group, Omariye 008, 2015

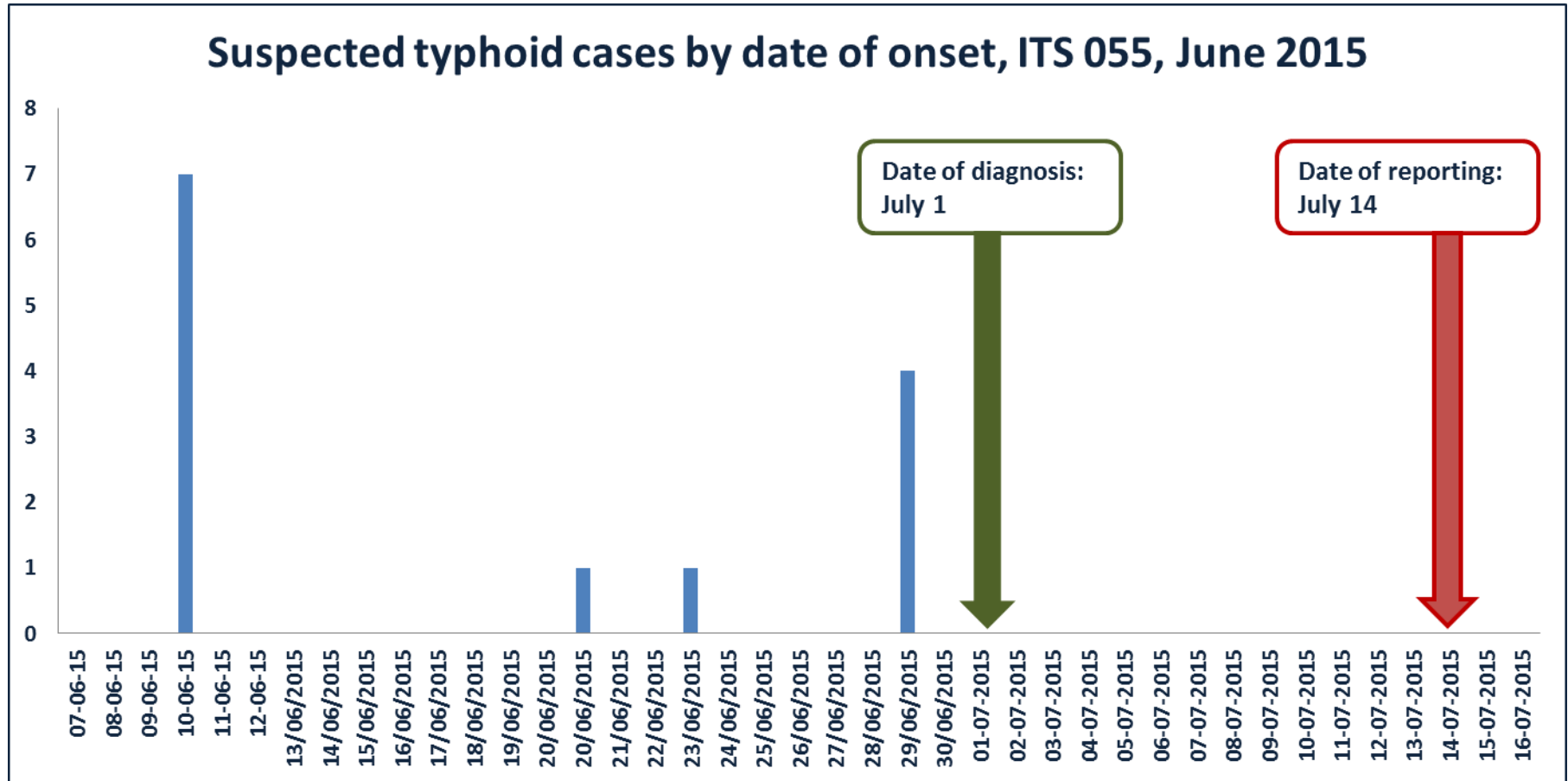


Typhoid fever cases by diagnosis date, Omariye ITS 008, Zahle, 2015



Suspected typhoid fever cases, ITS 055, June 2015

- 13 suspected cases reported by an MMU



- Lab tests were requested but no tests were performed

Suspected typhoid fever cases, ITS 055, June 2015

- No lab confirmation
- A relation between the 2 clusters??
- Information needed from WASH:
 - Is the sewage system in ITS 055 related to 008?

Lessons learned


Actions	Responsibility
Timely reporting	MMU/PHC
Importance of lab confirmation	MMU
Rapid and efficient interventions	WASH
Communication with UNHCR/Health & WASH even if suspected cases	ESU
To provide regular feedback	ESU
Coordination between the different partners	All
Get reliable information from the sources Take actions based on evidence	All
Training sessions on reporting procedures for MMU staff	MOPH & UNHCR/Health

Field Medical Units surveillance

FMU surveillance system

- Objective: to collect data on communicable diseases from medical units providing health services mainly for Syrian refugees
- Using an aggregated data form

FMU surveillance system: reporting form


 الجمهورية اللبنانية
 وزارة الصحة العامة

أمتعة التردد الوادي، عن الأمراض والنوايا الخاصة بالمتوسط والمراكز الصحية

(١) عن المستوصف والأسبوع

المحافظة	القضاء	البلدة	اسم المستوصف
التاريخ	من الاثنين	لغاية الأحد	رقم الاستمارة

(٢) عن الأمراض

ملاحظات	الحالات		الأمراض المشمولة بالترصد
	أقل من ٥ سنوات	٥ سنوات أو أكثر	
			vaccines preventable diseases / أمراض مناعية paralysis flasque aigue/acute flaccid paralysis / شلل رخو حاد rougeole / measles / حمى rubeole / rubella / حمى المائية coqueluche / pertussis or whooping cough / السعال الديكي أو الشاهوق oreillons / mumps / الكاف أو أبو كعب
			other communicable diseases / أمراض تنقلية أخرى diarrhée aigue/ acute diarrhea / إسهال حاد bloody diarrhea/ إسهال دموي مخاطي ictère / jaundice / حالة برقان حادة أو صفرة acute respiratory infection & flu / التهاب تنفسي حاد والزركام unexplained fever / حمى غير مشخصة gale / pediculosis or scabies / الجرب leishmaniasis / داء الليشمانيات other notifiable diseases/ أمراض تنقلية أخرى واجب الإبلاغ عنها épidémie/ outbreak / حالات تفشي وباء
			others / غيره asthma / asthma / ربو accident / injury / الحوادث والجروح autres consultations / other consultations / معالجات أخرى

(٣) عن الحالات التي استدعت الاستشفاء

#	الاسم	العمر	الجنس	بلدة الإقامة	اسم المستشفى	سبب الاستشفاء
١						
٢						

(٤) عن حالات الوفيات

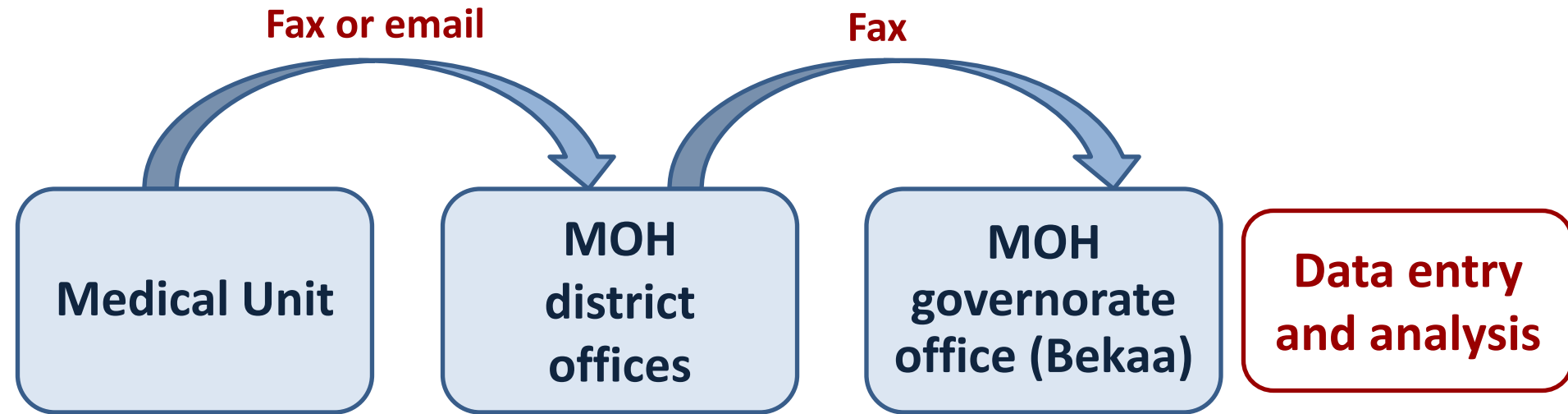
#	الاسم	العمر	الجنس	بلدة الإقامة	سبب الوفاة
١					
٢					

الاسم، التوقيع: _____ رقم الهاتف: _____

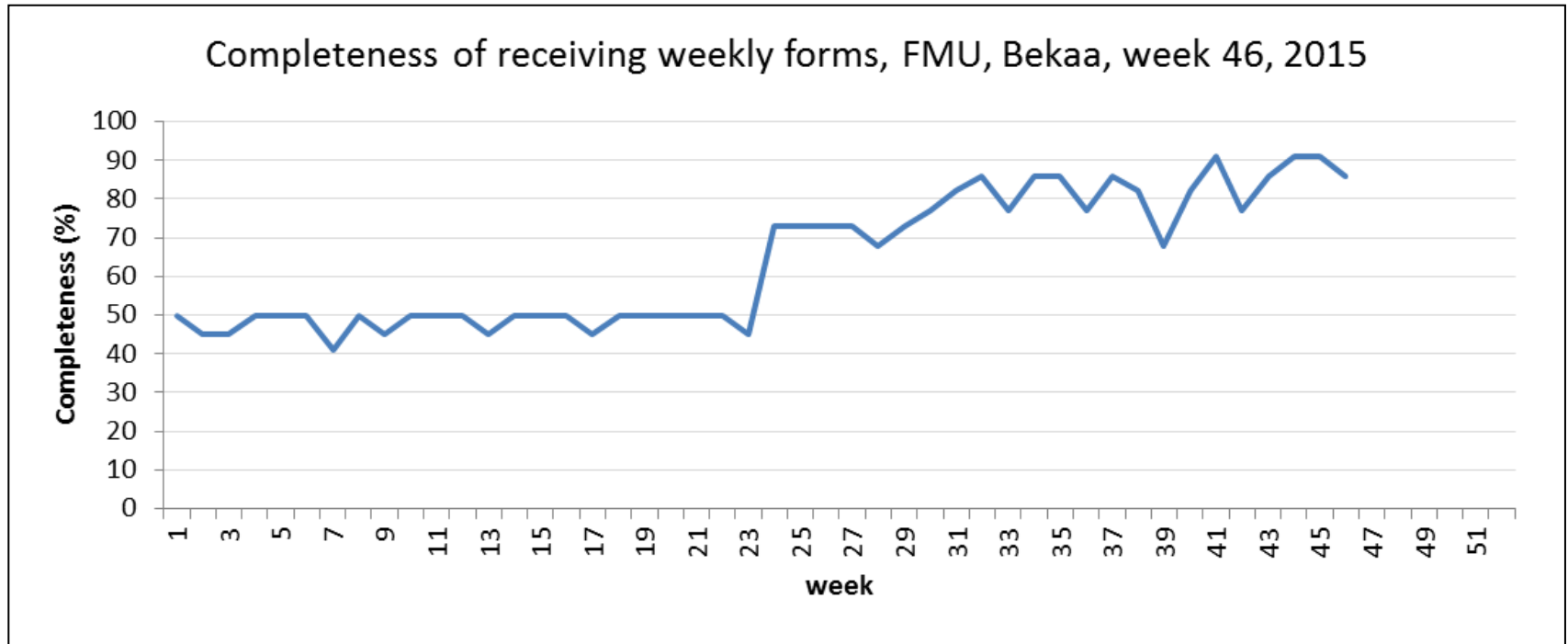
** بحة الأمراض الانتقائية الواجب الإبلاغ عنها فور تشخيصها أو الشك فيها: شلل الرخو الحاد و شلل الأطفال، الكوليرا، الخناق، التسمم الغذائي، الملاريا، التهاب السحايا، الكزاز البوتي، الكلب / السعار، انتفاخ البطن، كروتيفل جاكوب، الحمى النزفية، الحصان، حمى التيفوس، الحمى الصفراء
 ** بحة الأمراض الانتقائية الواجب الإبلاغ عنها أسبوعياً: بكتيريا، الحمى المالطية، التهاب الكبد الفيروسي A, B, C, D, E، الكيسات المائية، السيلان، الجذام، الملص، التريشوز، المل الرئوي، المل إشكال أخرى، الحموات الطفيلية

تم تصميم وزارة الصحة العامة رقم ٥ تاريخ ١١ شباط ٢٠١٣

Methods : Data Flow

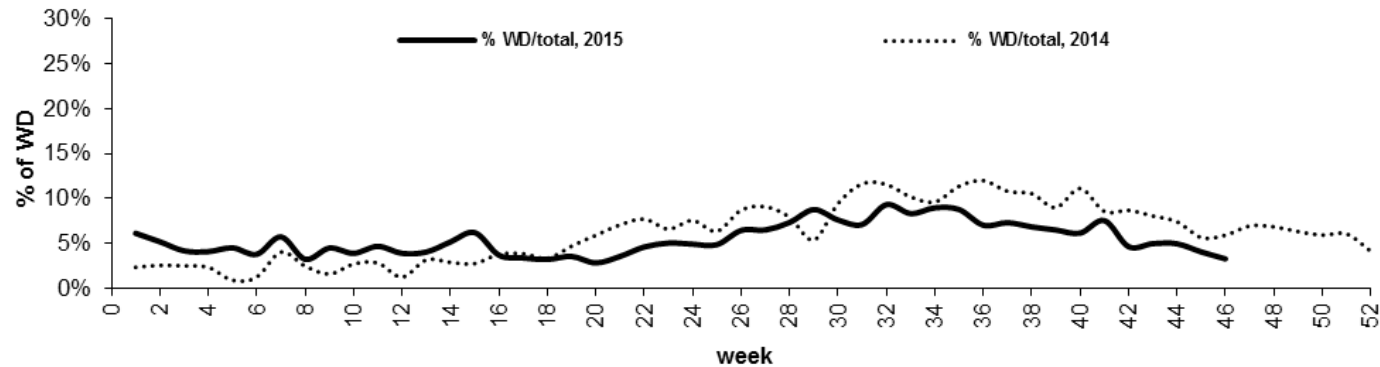


FMU surveillance system: Results

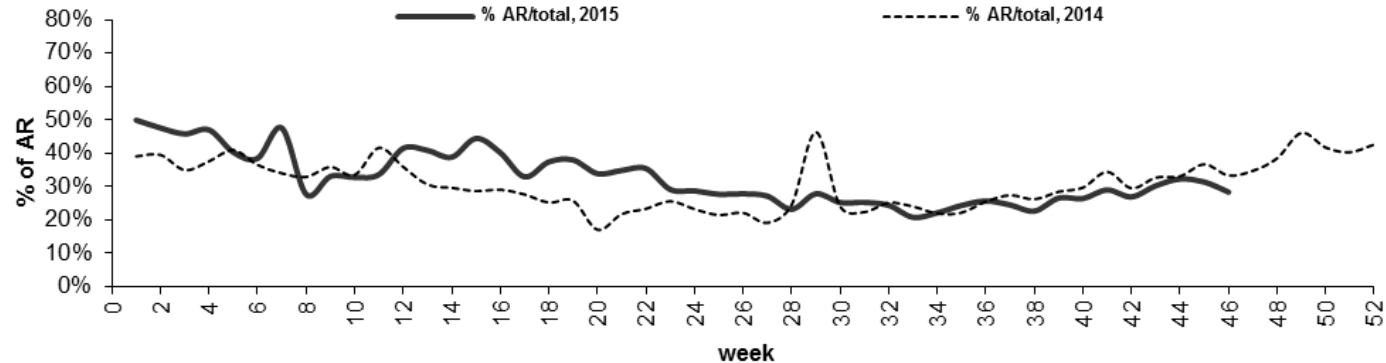


FMU surveillance system: Results

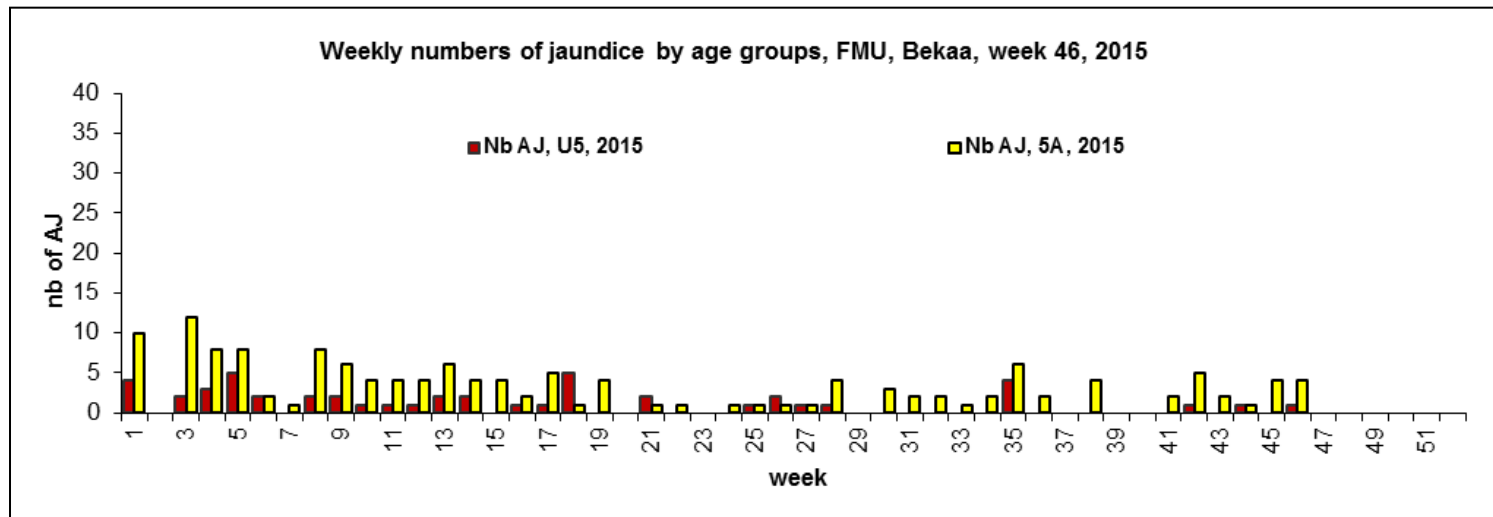
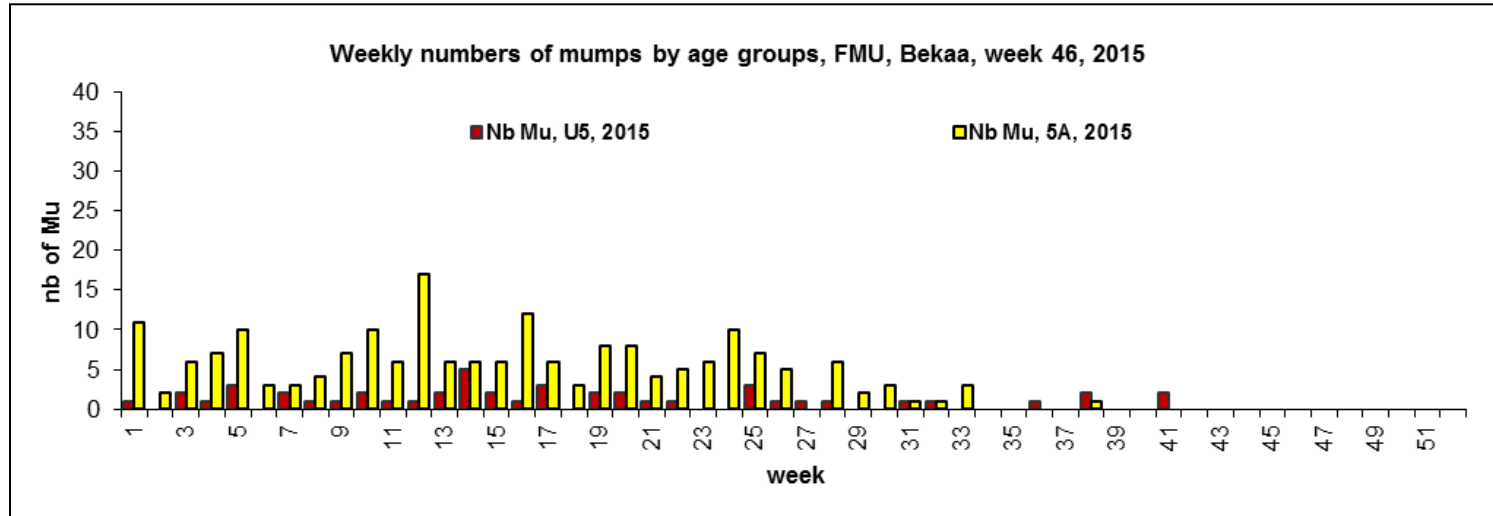
Weekly proportions of watery diarrhea cases, FMU, Bekaa, week 46, 2015



Weekly proportions of acute respiratory infections, FMU, Bekaa, week 46, 2015



FMU surveillance system: Results



FMU surveillance system : Guideline

← ↻ www.moph.gov.lb/pages/home.aspx

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Rubella

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Dispensary-based

ICU surveillance

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Health Clinics" in Ashrafieh

FMU surveillance system : Guideline

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Dispensary-based



Dispensary-based surveillance

In 2002, the Ministry of Public Health has issued a circular mandating all dispensaries in both the public and philanthropic sectors to report on monthly basis certain infectious diseases.

In 2006, with the WHO support, an early warning surveillance system based on dispensary and medical center reporting was implemented on weekly basis in the regions with war conflicts.

In 2009, the Ministry asked all dispensaries and medical centers all over Lebanon to participate in such surveillance system.

The objectives are:

- To ensure timely detection and response of outbreaks at local level
- To monitor trend of communicable diseases
- To complement the national communicable diseases surveillance database in order to have a more comprehensive overview about the current public health situation.

Please find below some materials:

- Weekly Form
- Official texts
- Power Point Presentation
- Guideline for medical center, dispensary, field medical unit based surveillance (Arabic)
- Guideline for medical center, dispensary, field medical unit based surveillance (English)

Please find below last available bulletin for 2013:

- National summary

FMU surveillance system: challenges

- Improving the completeness
- Timely reporting
- Separate forms for each locality
- Lab confirmation
 - Lab referral
 - MMU collecting specimens (ex: measles cases)
- Getting contact numbers for cases and detailed address (p-codes?)

Cholera

Cholera

- An acute bacterial disease
- Characterized in its severe form by sudden onset, watery-stools (rice-water stool), nausea, profuse vomiting
- Can lead to dehydration and death
- Transmitted through contaminated water, food and person to person
- Prevention: safe drinking water and food, hygiene

Cholera

- **No cases in Lebanon BUT we are at risk**
- Case definition of a suspected cholera case:
 - Severe dehydration or
 - Death from acute watery diarrhea
- Suspected cases to be reported immediately:
samples to be collected from the contacts
- Patients with dehydration to be referred to the hospital

Cluster of communicable diseases detected by a non medical teams

- Cluster of cases: a group of individuals having the same symptoms in the same place and time
- If cluster of cases detected by non medical teams
 - Referral to health center **AND**
 - Phone call or email to MOPH-ESU and UNHCR/Health

Summary

- Communicable diseases to be diagnosed by a physician (MMU or referred to a health center)
- All communicable diseases to be reported to MOPH-ESU using reporting forms
 - Weekly reportable diseases
 - Immediately reportable diseases & cluster of cases
- MOPH-ESU to coordinate with the Health/WASH UNHCR regarding any issue related to communicable diseases
- Official information on communicable diseases and outbreaks to be published by MOPH-ESU

References

- Control of Communicable Diseases Manual, 19th Edition Edited by David L. Heymann
Washington, DC: American Public Health Association, 2008.