

Episouth plus project WP7

SITUATION ANALYSIS ON COORDINATION OF SURVEILLANCE BETWEEN POINTS OF ENTRY AND THE NATIONAL HEALTH SYSTEM

Jordan



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Acronyms

CD	Communicable Diseases
CDS	Communicable Disease Surveillance Department
DCD	Directorate of Communicable Diseases of the Jordanian Ministry of Health
DG	Directorate General
DSU	Disease Surveillance Unit
ECDC	European Centre for Disease Control
EU	European Union
IHR	International health regulations
JFDA	Jordanian Food and Drugs Administration
JMoA	Jordanian Ministry of Agriculture
JUH	Jordan University Hospital
KAH	King Hussain Hospital
LHU	Local Health Unit
MD	Medical Doctor
MIA	Malta International Airport
MoH	Ministry of Health
NFP	National Focal Point
PHEIC	Public Health Emergency of International Concern
PoE	Point of Entry
QAIA	Queen Alia International Airport
RASFF	Rapid Alert for Food and Feed
RMS	Royal Medical Services
SA	Situation Analysis
ST	Steering Team
SOP	Standard Operating Procedures
SPH	Superintendent of Public Health
WHO	World Health Organization
WP	Work Package

1. Introduction

1.1. THE EPISOUTH NETWORK

The EpiSouth Plus project is aimed at increasing the health security in the Mediterranean area and South-East Europe by strengthening the preparedness for common health threats and bio-security risks at national and regional levels in the countries of the EpiSouth Network in the framework of the International Health Regulations (2005) (hereinafter referred to as IHR).

With its 27 countries (10 EU and 17 non-EU) EpiSouth is the biggest inter-country collaborative effort in the Mediterranean region. Focal Points from each participating country have been appointed and asked for active involvement in the project's activities.

The project is organized in seven Work Packages (WP), each jointly co-led by an EU and a non-EU country/International Organization. WP leaders work in close contact with the corresponding WP Steering Team (ST), while a Steering Committee, constituted by all WP leaders, and the Project General Assembly, constituted by all participants, are responsible for the general strategic decisions. Finally, an Advisory Board, constituted by representatives of the collaborating institutions and external experts, provide support for the revision of relevant documents and recommendations.

1.2. WORK PACKAGE 7 – FACILITATING IHR IMPLEMENTATION

Work Package 7 (WP7 – Facilitating IHR implementation) of the EpiSouth Network is co-led by the World Health Organization (WHO) and the Italian National Institute of Health (ISS) with the guidance of a Steering Team.

The goal of WP7 is to improve capacities required by the IHR, identified among those considered as priorities in the EpiSouth region. Its specific objectives are to identify capacities common to EpiSouth countries that need to be acquired or strengthened, to develop guidelines for their acquisition and to advocate for access to resources needed for their implementation.

Through its yearly monitoring, WHO assesses in each country the level of implementation of capacities required by the IHR. However, the approach adopted is purely quantitative: no information on how the capacity was acquired is available. In addition, disaggregated data by region or group of countries is usually not made available by WHO, the 1st report of the EpiSouth Plus Project¹ being an exception.

Activities performed by the EpiSouth WP7 during the first two years of the EpiSouth Plus project led to the identification of an area needing priority attention for the implementation of the IHR in the EpiSouth Region: the **coordination of surveillance between Points of Entry (PoE) and National Health Systems (NHS)**.

This aspect has been also recognized as a global priority, and WHO is developing a global guidance on coordination of surveillance between PoE and National Health Systems. The EpiSouth WP7 Steering Team has been among the expert groups consulted in this process.

Literature on the topic is very scarce². There is still a gap in information sharing of experiences and know how in this domain among countries.

¹ "Level of implementation of IHR 2005 in the EpiSouth Region: Analysis of WHO data and identification of priority areas", July 2011 available on the EpiSouth Plus website http://www.episouthnetwork.org/sites/default/files/outputs/wp7-episouth_ihr_assessment_final-final.pdf

² "In depth analysis of coordination of surveillance and response between points of entry and national systems in the EpiSouth region. Review of relevant scientific literature and of existing monitoring frameworks", December 2011 available on the EpiSouth Plus website http://www.episouthnetwork.org/sites/default/files/outputs/wp7-in_depth_analysis_of_coordination_of_surveillance_and_response_between_points_of_entry_and_national_system.pdf

As stated by the WP7 ST in two meeting occasions (July 2011 and July 2012), there is an added value in performing an analysis of anecdotic experiences and in sharing examples of how countries, facing similar problems in coordinating surveillance between Points of Entry and National Health Systems, approached and managed the functions required under IHR (through real-life illustrations). For this reason WP7 decided to perform a situation analysis to describe, among a selected number of countries, how coordination issues are addressed and which barriers are still in place. EpiSouth WP7 will therefore contribute to strengthening the coordination between PoE and national health surveillance systems, by documenting how this works in selected countries of the EpiSouth network.

1.3. THE EPISOUTH NATIONAL SITUATION ANALYSIS ON COORDINATION OF SURVEILLANCE BETWEEN POE AND NATIONAL HEALTH SYSTEMS/MOH

The general approach chosen is that of a **national situation analysis of selected countries in the EpiSouth Region**. To keep the effort cost effective the analysis was not carried out on all 27 countries of the network, but on four countries chosen on the basis of their demographic and geo-political characteristics and their willingness to be part of the study.

As stated above, quantitative surveys are already carried out by WHO annually to assess progress in IHR implementation. This study was designed in order not to duplicate this effort. In addition, countries present in the WHO workshop on coordination of surveillance between Points of Entry and National Health Systems, advised not to propose additional quantitative surveys, suggesting to adopt methods that could provide qualitative information on “how”, rather than “how much”, countries tackle coordination of surveillance. The methodology was defined taking into account these considerations.

1.3.1. Objectives of the national situation analysis

General objective:

Contribute to improve the coordination of surveillance between Points of Entry (PoE) and National Health Systems (NHS) in the EpiSouth region, in the framework of the IHR .

Specific objectives:

- Describe how the exchange of information is organized between PoE and NHS/MoH in four countries representative of the diversity of the EpiSouth region;
- Identify formal procedures in place and legal constraints in these four countries,
- Describe main challenges and success stories in establishing a functional coordination of surveillance between PoE and national health systems in these four countries.

2. Methodology

A full description of the methodology of the Situation Analysis (SA) is available in a separate text³ uploaded on the EpiSouth Plus Website. Only specificities of the implementation of the analysis in Jordan are hereby reported.

2.1. SELECTION OF JORDAN AS ONE OF THE EPISOUTH COUNTRIES PARTICIPATING TO THE NATIONAL SITUATION ANALYSIS

Jordan, a non EU country, was selected among the roster of possible candidate countries for the SA because of its experience in coordination of surveillance activities between Points of Entry and the Ministry of Health. After the definition of the Terms of Reference for the participation in the study and the agreement of the country through its EpiSouth Focal Point, Jordan was selected as representative of the third scenario depicted in Table 1.

With only one port, one designated airport and nine ground crossings (3 with Saudi Arabia, 2 with Israel, 1 with Iraq, 2 with the Syrian Arab Republic and one with Palestine), the situation analysis in Jordan was conducted in all types of PoE. In Jordan, the EpiSouth SA investigator team had the possibility of analysing how coordination of surveillance functions developed in a context where ports are very few and where airports and ground crossings have an important role in travel and transport.

Table 1 - Scenario categorization and situation analysis participating countries

SCENARIO	EXPECTED IMPACT ON COORDINATION BETWEEN POES AND NATIONAL SURVEILLANCE SYSTEM	PARTICIPATING COUNTRIES
Small coastal states and islands	No or few ground crossings, numerous ports, few airports. Small countries with possibly fewer administrative levels/ overlapping professional functions.	Malta
Large States with extensive coastlines and federal or strongly decentralized health systems	All PoE present in large numbers, numerous administrative levels with diversification of competencies and greater coordination complexities.	Italy
States with no or little coastlines	Ports absent or very limited, higher importance of airports and ground crossings for which greater experience may have been gathered.	Jordan
Large States with extensive coastlines and centralized HS	All PoE present in large numbers, numerous administrative levels but central bodies	Morocco

2.2. COLLATION OF AVAILABLE DATA

In advance of the site visit, documents and data on the country's government structure, its surveillance system, the type, number, size and location of PoE as well as relevant legislation and official guidance documents concerning coordination of surveillance functions between PoE and the National Health System were collected.

³ National Situation Analysis on coordination of surveillance between points of entry and national health systems. Methodology and Workplan_Final Draft, February 2013

2.3. PREPARATION AND EXECUTION OF THE SITE VISITS

The planning of the site visit and the development of the tools and materials to use, included in a dedicated portfolio, required a series of teleconferences and other communications, and collective, interactive work over the drafted documents among the EpiSouth investigators involved in the site visit: Abdullah Saleh Sultan (Jordanian MoH, EpiSouth Focal Point); Assad Rahhal (Jordanian IHR NFP responsible Person); Flavia Riccardo (ISS Italy, EpiSouth WP7 coleader) and Gerardo Priotto (WHO HQ, EpiSouth WP7 coleader) to define how the processes, procedures and performance could be studied and more specifically what kind of events would be relevant to the study, i.e. would require bilateral communication between the MoH and the PoE.

In Jordan all types of Point of Entry could be visited. The SA organizers selected: the Queen Alia International Airport (QAIA), the Al Omari ground crossing on the Saudi Arabia border and the port of Aqaba. The EpiSouth National Focal Point in collaboration with the Jordanian IHR NFP responsible person, identified the key actors and informants to be interviewed at each PoE to be visited. All interviewees received detailed information about the mission, in particular about the exact scope of the investigation, in order to avoid dispersion into the numerous activities of PoE that are not pertinent to human health surveillance. Interviewees were also informed in advance about the investigators' interest in obtaining copies of pertinent documents and were informed on the content of the checklist thanks to an *ad hoc* oral translation.

The visits included meetings involving the investigators and the PoE staff and a tour of key facilities with on-going relevant operations in each visited PoE. Following this, the discussions focussed on the analysis of imaginary scenarios of relevant health events that had been prepared by the investigators in advance.

A briefing and a debriefing meetings were held at the Jordanian Ministry of Health (Central level) at the beginning and at the end of the site visit. These meetings involved the investigators of the SA and MoH officers in charge of epidemiological surveillance and of health at PoE and the IHR NFP responsible person. In the briefing meeting investigators were introduced to the Jordanian National Health System, the organization of national epidemiological surveillance for human health and of health at PoE. In the debriefing meeting the investigators discussed with MoH officials how the site visit went.

3. Results

3.1. COUNTRY PRESENTATION

The Hashemite Kingdom of Jordan is a Middle Eastern constitutional monarchy. It borders Iraq, Israel, Saudi Arabia, Syria and the West Bank. The official language is Arabic, although English is also widely used. As of July 2013, the estimated population was of 6,482,081 people, mostly Arabs. More than 92% of the population is Muslim, about 6% are Christians.

One of the most arid countries in the world, Jordan covers an area of 89,342 sq km that comprises mostly desert plateaus in the east and highlands in the west. The country comprises 1,600 km of land borders and only 26 km of coast line. The Great Rift Valley and the Jordan River separate Jordan from the State of Israel and the West Bank⁴.

Administratively, Jordan is divided into 12 governorates (muhafazah), each headed by a governor appointed by the king. Governors are the authorities in charge of all government departments in their respective areas: the Capital (Amman), Irbid, Zarqa, Balqa, Mafraq, Jerash, Ajloun, Madaba, Karak, Tafilah, Ma'an and Aqaba⁵.



Figure 1 – Governorates of Jordan, source Jordanian Ministry of Interior⁶

3.1.1 General organization of the Jordanian Health Care system

The Health system in Jordan has been described as a “complex amalgam” of three health care sub-sectors: public, private, and donors, each with their own health financing and delivery systems⁷.

⁴ CIA World Fact Book <https://www.cia.gov/library/publications/the-world-factbook/geos/jo.html>

⁵ The Royal Jordanian Geographic Centre <http://www.rjgc.gov.jo/RJG.aspx?PID=6&lang=en>

⁶ Ministry of Interior Jordan, map of Governorates <http://www.moi.gov.jo/tabid/90/default.aspx>

Aside smaller university-based programmes, such as the Jordan University Hospital (JUH) in Amman and King Abdullah Hospital (KAH) in Irbid, there are two main programmes in the public health sector: the Royal Medical Services (RMS) that cater mostly for the Jordanian Army and the Ministry of Health (MOH). The Health Care System is decentralized and operates through an intermediate level following the administrative division described above. The national Health Policy is set by the High Health Council that represents all health care providers.

An extensive private for profit sector works aside the public health care providers and accounts for nearly 40% of all initial patient contacts. It runs 56 hospitals that provide 36 percent of all hospital beds in Jordan⁷ as well as many private clinics.

Health services in Jordan are also offered by international and charitable organizations including the United Nations, the Zakat Fund (Islamic alms giving) and NGOs. Some of those institutions are very large and cater for a considerable proportion of Jordanian residents. This is the case of the United Nations Relief Works Agency for Palestine Refugees in the Near East (UNRWA) which serves over 2 million Palestinian refugees in Jordan and manages 24 primary health care facilities in the country⁸.

The Jordanian Ministry of Health, established in 1950⁹, is responsible on behalf of the government on all health issues and services under public health laws and legislation¹⁰. It is committed to making quality health care services available and accessible to all citizens¹¹. The Jordanian Ministry of Health (MOH) is also the largest single public institution financing and delivering health care services in Jordan. It operates 1,245 primary health-care centers and 30 hospitals (37 percent of all hospital beds in the country)¹². The organogram of the Jordanian Ministry of Health is shown in Figure 2.

3.1.2 The Directorate for Disease Control/MOH Jordan

Established in 1993, the Disease Control Directorate of the Jordanian Ministry of Health¹³ aims to prevent and control communicable and non-communicable diseases in Jordan. Since 2008, within this Directorate is the Directorate of Communicable Diseases (DCD). Currently, DCD includes the following divisions/departments: the Communicable Disease Surveillance Division, Infection Control Department; the Zoonotic Disease Division, Diarrheal Disease and Cholera Control Department; the EPI Division, Sera and Vaccine Department, the Malarial and Bilharzia Disease Control Division; the Sexually Transmitted Disease Division and the HIV/AIDS programme.

⁷ World Health Organization Eastern Mediterranean Regional Office (EMRO) Division of Health System and Services Development (DHS), Health Policy and Planning Unit, Health Systems Profile. Musa T. Ajlouni. Hashemite Kingdom of Jordan, 2011 available at <http://ajlunihm.com/wp-content/uploads/2011/07/Jordan-HSP-2010-Final.pdf>

⁸ United Nations Relief Works Agency (UNRWA) <http://www.unrwa.org/>;
<http://www.unrwa.org/activity/health-jordan>

⁹ Regional Health Systems Observatory- EMRO Health Systems Profile-Jordan, 2006

¹⁰ *According to the Public Health Law No.47, issued by a Royal decree in 2008, the Ministry of Health is in charge of all health matters in the Kingdom, including the maintenance of public health by offering preventive, treatment and health control services and supervision and organization of health services offered by the public and private sectors.*

¹¹ EpiSouth Project. Directory of Public Health Institutions, Jordan 2008
<http://www.episouthnetwork.org/sites/default/files/PublicHealthInstitutions/jordan.pdf>

¹² Healthcare in the Hashemite Kingdom of Jordan <http://lexarabiae.meyer-reumann.com/blog/2010-2/healthcare-in-the-hashemite-kingdom-of-jordan/>

¹³ Disease Control Directorate of the Jordanian Ministry of Health <http://www.dcd.gov.jo/Eindex.asp?id=901>

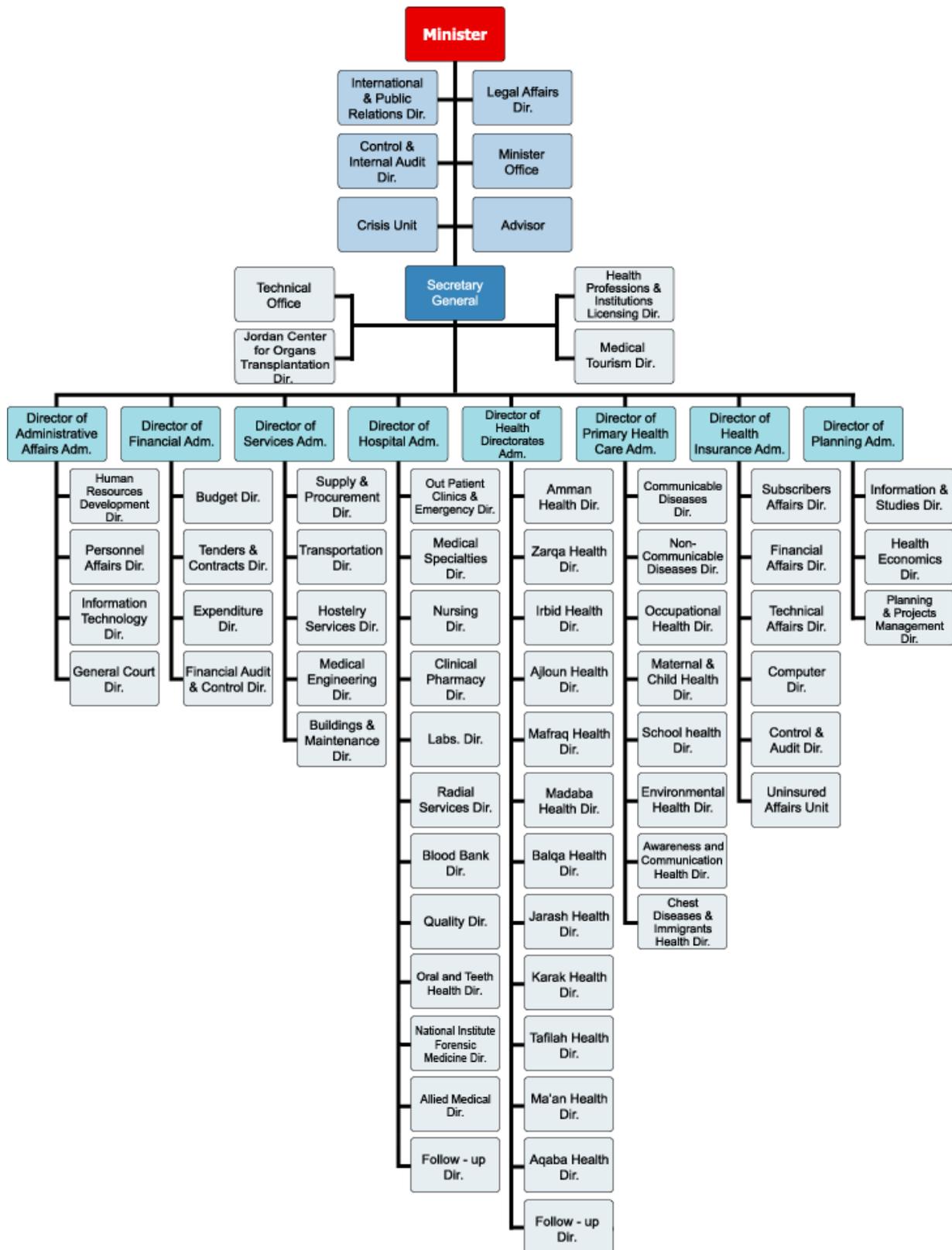


Figure 2 – Organogram of the Jordanian Ministry of Health ¹⁴

¹⁴ Jordanian Ministry of Health Organogram

<http://www.moh.gov.jo/EN/AbouttheMinistryofHealth/Pages/Organizational-Chart.aspx>

3.2. HEALTH AT POINTS OF ENTRY

The International Health regulations 2005 (IHR) were adopted in the Jordanian legislation with the Public Health Law No. 47/2008 . The designated IHR NFP in Jordan is the DCD of the Jordanian Ministry of Health and the IHR NFP responsible person works in close contact with the officers in charge of communicable disease surveillance.

Jordan has designated one port (Aqaba), one international airport (Queen Alia) and two ground crossings. Competent health authorities are present in all designated Points of Entry working in Health Centres of the Ministry of Health located on site. An exception is the Port of Aqaba where this role is carried out by a medical doctor hired by the Port Corporation who works in a dedicated health centre in the port premises.

All competent health authorities at PoE report to the MoH intermediate level (Reporting Department) for aspects concerning human health as per the reporting requirements established at national level. Reporting Departments relay the information to the concerned MoH central level directorates. The central and intermediate levels take part in regular coordination meetings and are both involved in detection and response functions (Figure 3).

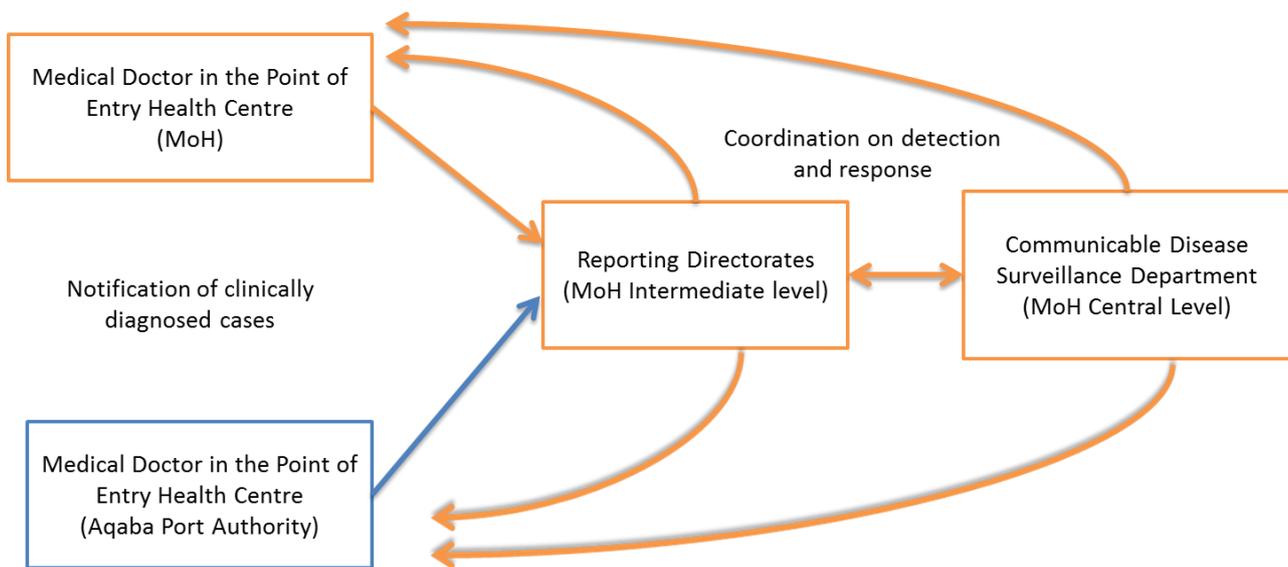


Figure 3 - Communicable Disease Surveillance: communication between competent health authorities at PoE and the MoH intermediate and central level, MoH personal communication

Animal health at Points of Entry in Jordan is under the responsibility of the Jordanian Ministry of Agriculture (JMoA)¹⁵. A veterinarian of the JMoA is present in PoEs where live animals are inspected and is in charge of taking appropriate action in case of non-conformity to the existing regulations (quarantine/destruction).

The inspection and approval of the import and export of drugs and food (including meat and fish - fresh, refrigerated, smoked or processed in other ways) is under the responsibility of the Jordanian Food and Drugs Administration (JFDA)¹⁶. This is an independent institution under the umbrella of the Jordanian Minister of Health.

While coordinators for communicable diseases and zoonosis (human side), chemical events, radiological events, food safety issues and zoonosis (animal side) have been identified in the Port and Airports in Jordan, this is not the always the case for ground crossing.

¹⁵Jordanian Ministry of Agriculture <http://www.moa.gov.jo/ar-jo/home.aspx>

¹⁶Jordanian Food and Drugs Administration <http://www.jfda.jo/>

An emergency at Points of Entry, whatever the cause, triggers the activation of emergency plans¹⁷ and protocols at PoE and, as needed, at intermediate/national level. In this case specific stakeholders such as the civil defence and the crisis and emergency unit in the MoH are involved. In all situations that configure a possible public health emergency of international concern, whatever the nature, in the PoE, the competent health authorities report directly to the IHR NFP responsible person at MoH (Central Level) who then is called to involve all other relevant departments in the MoH (e.g. the Environmental Health and the Occupational Health directorates).

Jordan is in the process of strengthening further the coordination of institutions working on aspects related to IHR at PoE. In March 2013, WHO organized in Jordan a training workshop for capacity building at Points of Entry as required under IHR and, a week prior to the EpiSouth Plus site visit, a dedicated coordinating body formed by twenty concerned Institutions had met to discuss WHO recommendations in regards to IHR implementation, plan regular meetings with the central level and discuss emergency surge capacity.

3.3. NATIONAL COMMUNICABLE DISEASES SURVEILLANCE IN JORDAN

The Jordanian Statutory Communicable Disease Surveillance System, updated in 2010, is designed to systematically collect data on 43 diseases¹⁸ from 23 Reporting Directorates across the country which in turn collect surveillance data from each health centre in their territory (Figure 4).

The Reporting Directorates in Jordan are: Amman, East Amman, Madaba, Zarka, Balqa, S.Shouneh, Der Alla, Irbid, Bane Kenana, Kura, Ramtha, N.Agwar, Ajloun, Jarash, Mafrak, Ruwaished, N.Badia, Karak, Tafileh, Maan, Aqaba, Unrwa, S.Agwar¹⁹.

National data on communicable diseases collected through statutory surveillance is managed by the **Communicable Disease Surveillance Department (CDS)**, part of the DCD. Its mission is to “strengthen the surveillance of communicable diseases including emerging and re-emerging infectious diseases in Jordan, to early detect and effectively respond to outbreaks, provide estimates of the magnitude of morbidity and mortality, and assess the effects of control measures”²⁰. In order to achieve this mission, the CDS aims to improve the quality of communicable diseases surveillance data, improve the exchange of information and dissemination of data on communicable diseases among data providers, end-users and decision-makers; decentralize data use; establish laboratory-based surveillance for communicable diseases and strengthen collaboration among partners¹⁷.

3.3.1. Legislation

The Public Health Law No. 47/2008 is the most important law which regulates issues related to the public health system in Jordan. The most relevant internal document is the “National Guideline for Communicable Disease Surveillance” last updated in 2010 (all documents are available in Arabic).

¹⁷The civil defence contingency plan and the Governorate level emergency Plans. In Zarqa Governorate the emergency plan was also tested in a simulation exercise in 2002.

¹⁸ Communicable Disease Surveillance Department, Jordanian Ministry of Health. List of Notifiable Diseases <http://www.dcd.gov.jo/EList.asp?id=2>

¹⁹ Communicable Disease Surveillance Department, Jordanian Ministry of Health. List of Reporting Directorates <http://www.dcd.gov.jo/EList.asp?id=1>

²⁰ Communicable Disease Surveillance Department, Jordanian Ministry of Health <http://www.dcd.gov.jo/Eindex.asp?id=10>

Hashemite Kingdom Of Jordan																	المملكة الاردنية الهاشمية									
M.O.H																	وزارة الصحة / مديرية رقابة الامراض									
Annual Notifiable Communicable Report Diseases																	التقرير السنوي لحدوث الامراض السارية									
By Reporting Sites 2008																	حسب مراكز التبليغ									
Disease	Amman	E. Amman	Madaba	Zarqa	Balqa	S.Shana	Der Alla	Irbid	B. Karana	Kara	Ramtha	Nagwar	Ajlun	Jarash	Mafraq	Rwaidhead	N. Badia	Karak	Tafilah	Ma'an	Aqaba	Uruja	S. Ajlun	Total	المرض	
Cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	كوليرا
Plague	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	طاعون
Yellow Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	الحصى الصفراء
M. Meningitis	7	1	0	1	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	13	سحليا بكتيري وبائي
O Bact Meningitis	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	سحليا بكتيري
Hib Meningitis	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	سحليا المستكفية التزلية
Viral Meningitis	76	8	2	33	12	1	3	371	0	9	1	0	2	4	8	0	0	0	2	0	2	0	0	0	534	سحليا فيروسي
Typhus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	تيفوس
AIDS	74	0	1	3	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	89	ايدز
Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	شلل
Acute Flaccid Paralysis	8	4	1	7	3	0	3	1	0	0	0	0	2	0	0	0	0	0	4	2	2	1	0	1	39	شلل رخو حد
Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	دفتريا
Pertussis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	سعال نيكى
Tetanus Adults	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	كزاز
Tetanus Neo.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	كزاز حديث الولاده
Measles	10	0	1	6	3	0	4	1	2	0	0	0	1	14	1	0	0	0	0	1	14	0	1	0	59	حصية
G.measles	25	3	2	16	19	0	9	1	3	2	0	3	5	13	5	0	2	2	0	0	7	0	5	0	122	الحصية الالمانية
Mumps	28	22	5	11	23	13	19	17	0	0	9	2	6	3	5	0	5	5	1	0	14	0	5	0	193	تكاف
Pul T.B	0	0	0	13	0	0	1	30	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	47	تدرن رئوي
Non Pul T.b	0	0	0	22	0	0	0	36	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	59	تدرن غير رئوي
Typhoid & Para Typho	1	1	2	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	تيفويد وبارا تيفويد
Food Poisoning	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	تسمم غذائي
Hepatitis A	35	29	7	101	31	10	34	19	4	2	17	15	0	47	74	1	4	17	5	0	4	0	8	0	464	التهاب الكبد الوبائي أ
Hepatitis B	2	0	0	0	2	0	1	1	1	0	0	0	0	2	0	0	0	0	1	0	3	0	0	0	13	التهاب الكبد ب
Relapsing Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	حمى راجعة
Bruceellosis	14	6	17	14	2	0	2	4	0	0	0	0	0	2	12	2	4	16	10	0	6	0	0	0	111	حمى مالطية
Malaria	12	4	0	2	0	0	0	8	1	0	2	0	1	1	0	0	0	8	2	2	2	2	0	0	45	ملاريا
Bilharzia	27	7	0	1	3	4	37	7	0	0	1	34	0	0	0	0	0	0	0	1	0	0	0	0	126	بلهارسيا
Hydatidosis	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	القياس مانية
Cut. Leshmania	1	0	0	0	0	71	4	0	0	1	0	93	0	0	0	0	0	11	50	0	13	0	0	0	244	التشمع الجذبية
Rabies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	داء الكلب
Animal Bite	475	233	195	285	158	74	180	523	56	61	57	172	65	133	227	6	89	9	25	10	3	0	3	3039	حالات العقر	
Leprosy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	جذام
Ringworm	0	0	0	0	0	4	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	قرع
Scabies	0	2	0	2	7	10	4	0	0	1	4	5	5	7	0	0	0	0	5	2	1	0	3	0	58	جرب
Syphilis	3	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	زهرى
Gonorrhoea	1	0	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	سيلان
Chicken pox	353	462	44	1738	1991	294	1303	376	203	45	379	95	115	673	409	43	348	813	106	442	656	0	468	11356	جدري ماء	
Anthrax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	الجدره الخبيثة
Scarlet Fever	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	حمى قرمزية

Figure 4 – 2008 annual notifiable communicable disease report, Jordan MoH²¹

3.3.2. General organization

Notification is mandatory by law for all health care providers. The health centres and hospitals report on an immediate, weekly or monthly basis according to the notification requirements of notifiable diseases (Figure 4) to their Reporting Directorate.

Notifiable diseases are divided in two groups: Group A and Group B. Group A diseases have to be reported within 24 hours (immediate reporting) while group B diseases are to be reported on a weekly or monthly basis (Figure 5).

Data is currently relayed in hard copy to the CSDS at central MoH level. Electronic transmission of data has not been recently possible because of a change in the DCD location that has led to technical constraints. However, the electronic system was running previously and MoH officials hope it will be soon re-established.

Data is collated, analysed and interpreted in the CSDS to detect any changes in an occurrence of diseases and react promptly. Aside statutory surveillance CSDS also manages independent data flows for diarrheal diseases that, as in the case of rotavirus, have dedicated sentinel reporting units.

²¹Jordanian Ministry of Health

قائمة الأمراض الواجب التبليغ عنها
List Of Notifiable Communicable Diseases

مجموعة أ- الأمراض الواجب التبليغ عنها فوراً
Group A: Diseases to be notified immediately (1)

- | | |
|--|--|
| ▶ Acute Flaccid Paralysis (AFP) | ◀ الشلل الرخسو الحاد |
| ▶ Cholera | ◀ الكوليرا |
| ▶ Diphtheria | ◀ الدفتيريا |
| ▶ Food poisoning | ◀ التسممات الغذائية |
| ▶ HIV/AIDS (2) | ◀ الفيروس المناعي البشري |
| ▶ Meningococcal diseases (3) | ◀ أمراض الكوكتريا السحائية |
| ▶ Neonatal tetanus | ◀ التتراز الوليدي |
| ▶ Pertusis | ◀ السعال الديكي |
| ▶ Plague | ◀ الطاعون |
| ▶ Poliomyelitis | ◀ شلل الأطفال |
| ▶ Rabies | ◀ داء الكلب |
| ▶ Suspected G. Measles (4) & Congenital Rubella Syndrome | ◀ التهاب حمصية ثانية وعلامة العصبية الثانية الطفيلية |
| ▶ Suspected Measles (4) | ◀ التهاب حمصية |
| ▶ Unexpected or unusual diseases or events (6) | ◀ الأمراض أو الأحداث غير العادية أو غير المتوقعة |
| ▶ Viral hemorrhagic fevers (7) | ◀ الحمى النزفية الفيروسية |
| ▶ Yellow fever | ◀ الحمى الصفراء |

مجموعة ب- الأمراض الواجب التبليغ عنها أسبوعياً وشهرياً
Group B: Diseases to be notified weekly & monthly

- | | |
|--|--|
| ▶ Adverse Events Following Immunization | ◀ الآثار الجانبية للتطعيم |
| ▶ Animal bite | ◀ القتر الحيواني |
| ▶ Bacterial (non-meningococcal) meningitis | ◀ التهاب السحايا (عدا الكوكتريا السحائية) البكتيري |
| ▶ Bilharziasis | ◀ البلهارسيا |
| ▶ Bloody diarrhea | ◀ الإسهال الدموي |
| ▶ Brucellosis | ◀ الحمى المالطية |
| ▶ Chicken pox | ◀ الجدري الخبيث |
| ▶ Cutaneous leishmaniasis | ◀ الشامات الجلدية |
| ▶ Diarrheas | ◀ الإسهالات |
| ▶ Hydatid cysts | ◀ الأكياس المائية |
| ▶ Malaria | ◀ الملاريا |
| ▶ Mumps | ◀ النكس |
| ▶ Sexually transmitted diseases (STDs) (8) | ◀ الأمراض المنقولة عن طريق الجنس |
| ▶ Tetanus | ◀ التتراز |
| ▶ Tuberculosis (9) | ◀ السل |
| ▶ Typhoid & paratyphoid | ◀ التيفويد والباراتيفويد |
| ▶ Viral hepatitis (10) | ◀ التهاب الكبد الفيروسي |
| ▶ Viral meningitis | ◀ التهاب السحايا الفيروسي |

يتم الإبلاغ لمديرية الصحة المعنية في المنطقة

مديرية الأمراض السارية - هاتف : ٥٦٠٧١١٤ - فاكس : ٥٦٨٩٩٦٥ - www.dcd.gov.jo

مديرية رقابة الأمراض

- ◀ هاتف - فاكس - بريد الكتروني - رعاية قديمة (1) ▶ Telephone, fax, email, sms
- ◀ تبليغ يحافظ على الخصوصية لجهات الصحية المعنية (2) ▶ Confidential reporting to designated health department
- ◀ التهاب السحايا - تسمم الدم - التهاب الدماغ (3) ▶ Meningitis, meningococemia, encephalitis
- ◀ كل حالة حمى مع طفح جلدي ويشبهه الطبيب المعالج بإصابتها بالحمى الTYنية (4) ▶ Any person with fever and maculopapular rash in whom a clinician suspects German measles infection.
- ◀ كل حالة حمى مع طفح جلدي ويشبهه الطبيب المعالج بإصابتها بالحمى (5) ▶ Any person with fever and maculopapular rash in whom a clinician suspects measles infection.
- ◀ أي مرض أو حدث ينتج قلقاً في مجال الصحة العامة للشعبا الوطنية - السارس - الإنفلونزا البشرية الناجمة عن نمط جديد - الجدري - (6) ▶ Any disease or event of potential public health concern (e.g: visceral leishmaniasis, SARS, new type of influenza, smallpox,...etc)
- ◀ إيبولا - لاسا - دايونغ - حمى الوادي المتصدع - حمى الضنك - حمى النيل الغربي - حمى القرم وكفتو (7) ▶ Ebola, Lassa, Marburg, Rift Valley, Dengue, West Nile, Crimean Congo Hemorrhagic Fever (CCHF)
- ◀ الأمراض المنقولة عن طريق الجنس (الزهري - السيلان - الكلاميديا) (8) ▶ STDs (Syphilis, gonorrhea, Chlamydia
- ◀ التمدن (الرئوي وغير الرئوي) (9) ▶ Tuberculosis (Pulmonary, extra-pulmonary
- ◀ التهاب الكبد الفيروسي أ - ب - ج - د - و (10) ▶ Viral hepatitis (A, B, C, D, E)

Figure 5 – List of notifiable diseases in Jordan and reporting requirements, source MoH²²

3.4. COORDINATION OF HUMAN HEALTH SURVEILLANCE BETWEEN POINTS OF ENTRY (POE) AND THE JORDANIAN MOH (CENTRAL LEVEL)

Coordination of human health surveillance for communicable diseases between PoE and the Jordanian MoH (central level) is favoured by the presence of competent health authorities working in health centres within the PoE premises who report to established MoH Reporting Directorates following the statutory surveillance requirements described above. Data on diseases under surveillance would reach the central MoH level through the Reporting Directorates.

Chemical and Radio-nuclear events as well as any other type of emergency would lead to the activation of emergency contingency plans and to the involvement of the concerned directorates of the MoH at central and governorate level. Suspected Public Health Emergencies of International Concern (PHEIC) would be directly reported by the competent health authority at the PoE to the IHR NFP responsible person at the MoH central level.

3.4.1. Standard Operating Procedures (SOPs)

No formalized SOPs and guidance documents defining routine and urgent communication between PoE competent health authorities and the MoH (local, intermediate and central level) are available. Procedures are nonetheless being followed and have been here summarized based on the inputs provided by the informants (Figure 6).

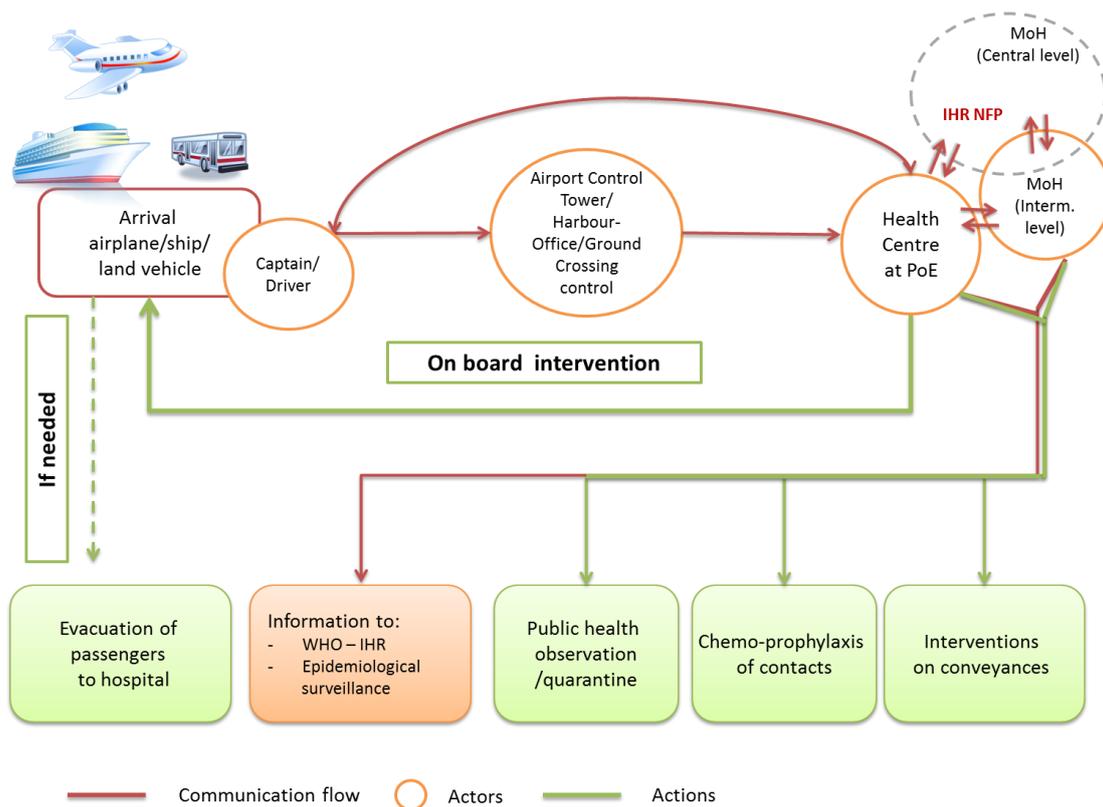


Figure 6 – Human Health at Port and Airport and Ground Crossings– communication flows and actions, MoH personal communication

3.4.2. General Organization

As shown in Figure 6, communication of a relevant human health threat occurring on board a conveyance is initiated by the Captain of the airplane/ship or by the driver/passengers of a land vehicle at a ground crossing

forcibly through the Airport Control Tower/ the Harbour master in the first case and through the ground crossing passport control point in the second. The Competent Health Authority in the PoE Health Centre will be contacted and will assess the situation, communicate as per notification requirements with the MoH intermediate level and/or directly with the IHR NFP responsible person at MoH Central level (if a possible PHEIC is suspected). The medical officer in the PoE is in charge of initiating needed action to confirm and manage the situation in collaboration with other concerned actors on site (such as food safety and animal health experts).

3.4.3. Coordination of human health surveillance in the Jordanian MoH Central Level , Amman

The IHR NFP is located in the Communicable Disease Control Directorate (DCD) of the Jordanian Ministry of Health in Amman working in close collaboration with officers in charge of communicable disease surveillance and control nationwide.

Table 2 – Actors involved in the EpiSouth National Situation Analysis in Italian Ministry of Health Central Level

Actor	Present the MoH?	Notes related to relevance	Involved in the site visit?
IHR NFP	Yes		Yes
Operators in Public Health Surveillance	Yes		Yes
People in charge of PoE surveillance data management	No		No

3.4.3.1. Legislation

The MoH central level complies with IHR 2005 through its endorsement in domestic law and with the reporting requirements for communicable diseases depicted in the guidelines updated in 2010. No SOPs regulate coordination of surveillance between Points of Entry and the Ministry of Health. For further details consult Annex 5.2 to this report (Legal Framework).

3.4.3.2. General organization

If a communicable disease is found among passengers or staff in the point of entry the notification requirements followed are those described in section 3.3 of this report. Nothing distinguishes forms compiled in a PoE from those compiled in other health facilities in Jordan. Details of the patient's travel history can be included by the notifying authority only as a comment in free text in a "remarks" section at the end of the form. When a human health event of possible international concern occurs involving a conveyance at a PoE, the Medical Officer at Port/ Airport/Ground Crossing notifies directly the IHR NFP responsible person. An assessment is performed in line with the algorithm in Annex 2 of the IHR. Control measures are applied in collaboration with the MoH intermediate level. In 2012 no health events have been reported from PoEs in Jordan (Table 3).

Table 3 - Number of reports per type of event that occurred at PoEs in 2012 and status of transmission

	Number	N. arrived within the timeframe of the surveillance system	N of individual events signalled	% of events for which feedback reports were sent to the PoE	N of events that qualified as PHEIC under IHR 2005
3.3.1) N. Reports for Communicable Disease Outbreaks	0	0	0	0	0
3.3.2) N. Reports for food safety events	0	0	0	0	0
3.3.3) N. Reports for Chemical threats	0	0	0	0	0
3.3.4) N. Reports for Radio-nuclear threats	0	0	0	0	0
3.3.5) N. Reports for zoonosis (animal)	0	0	0	0	0
3.3.6) N. Reports for zoonosis (human)	0	0	0	0	0
3.3.7) N. Reports for Chemical threats	0	0	0	0	0
3.3.8) N. Reports for Radio-Nuclear threats	0	0	0	0	0
3.3.9) N. Reports for Other (specify) threats	0	0	0	0	0

3.4.4. Coordination of human health surveillance in Queen Alia International Airport (QAIA)



Queen Alia International Airport (Matar al-Malikhah 'Alya' ad-Dowaly) is the largest airport in Jordan located in the area of Gizah, 32 km south of Amman. It is the main hub of the Royal Jordanian Airlines and a major hub for Jordan Aviation. In 2012 the airport handled over 6 million passengers and 67,000 aircraft movements²³. Currently QAIA is a hub that reaches 87 destinations in 47 countries and 4 continents²⁴.

In March of 2013 the old airport closed and a new one opened. The new building is much larger than the previous one with improved facilities. The airport hosts a 24/7 medical center available for all airport users²⁵.

Table 4 – Actors involved in the EpiSouth National Situation Analysis in QAIA airport

Actor	Present the airport to be visited?	Notes related to relevance	Involved in the site visit?
Person in charge of human health surveillance	Yes	A Medical Doctor with function of Competent Health Authority is in charge of an MoH Health Centre on site and is also responsible for notifying diseases according to the national surveillance requirements.	Yes
Person in charge of animal health surveillance	Yes	This duty is covered by veterinary services (Ministry of Agriculture). The focal point for animal health at QAIA works in collaboration with the airport Competent Health Authority (MoH) and is in charge of the approval of imports of live animals	Yes
Person in charge of surveillance of food safety	Yes	The food safety aspects are covered by the Jordanian Food and Drug Administration contact person	Yes
Person in charge for surveillance of health hazards related to cargo	No	This task is covered by the actors mentioned above according to the type of cargo (live animals, food, drugs)	No
NGOs	No		No
Medical staff of conveyance (private/public)	Yes	Trained medical crews	No
People in charge of conveyances (Occupational medical staff from Royal Jordanian air company)	Yes	Royal Jordanian Safety	Yes
Border control professionals (Customs Officers)	Yes		No
People in charge of the airport infrastructure (hub)	Yes	Airport International Group	Yes

²³[http://en.wikipedia.org/wiki/Queen Aliah International Airport](http://en.wikipedia.org/wiki/Queen_Aliah_International_Airport)

²⁴<http://www.theairdb.com/airport/AMM.html>

²⁵Queen Aliah International Airport <http://www.amman-airport.com/>



Figure 7 – EpiSouth SA investigators and QAIA Airport Staff

3.4.4.1. Legislation and other relevant documents

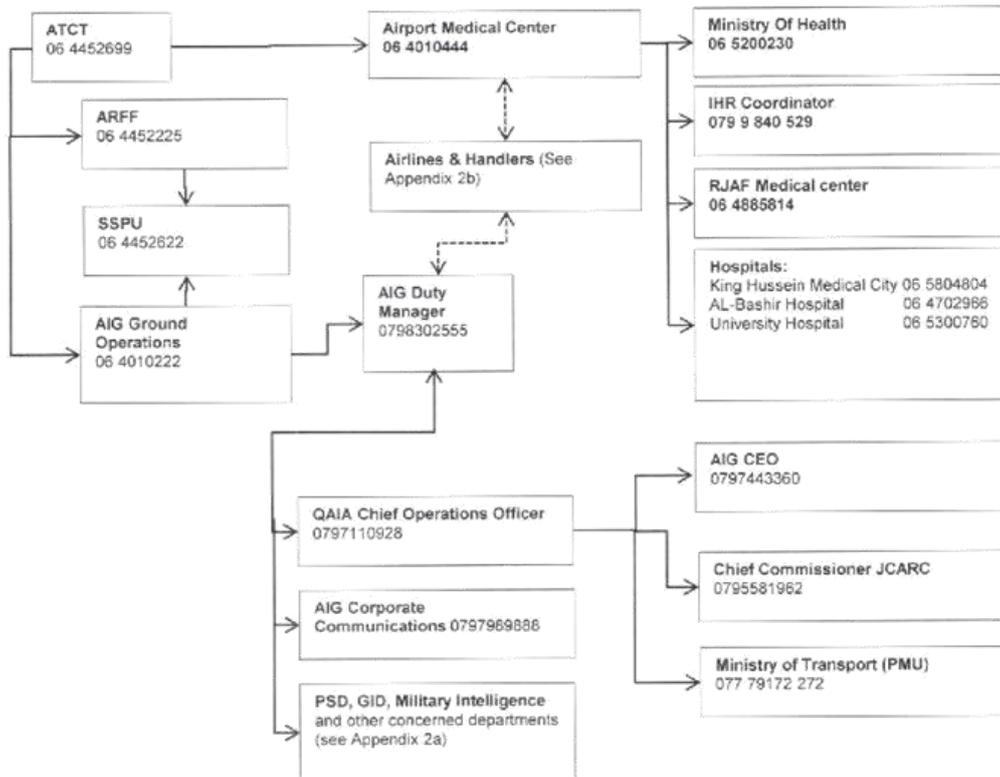
The Health Part of the Aircraft General Declarations per art. 38 of the IHR, fully endorsed by national legislation in Jordan, is the keystone official documentation as to health conditions on board during an international voyage. In case of emergencies, the reference document is the reporting protocol for events of public health relevance included in the QAIA Emergency Plan (Figure 8).

In addition informants referenced as relevant IATA regulations on civil aviation in particular focusing on dangerous items. Also the work of the CAPSCA (Collaborative Arrangement for the Prevention and management of public health events in Civil Aviation) project was mentioned as relevant to improve coordination of the various actors in the airport and the airline companies in the framework of IHR.

3.4.4.2. General organization

In the case a suspected communicable disease occurs on board a conveyance, the captain of the aircraft contacts the air control tower of the QAIA which contacts directly the Airport Medical Centre (Figure 8). The Competent health authority at QAIA along with staff in charge of the airport security of QAIA (the Airport International Group) will assess the situation ahead of the landing based on the information available. At this stage decisions are made on whether to activate the emergency protocols, involve the Civil Defence which is in charge of setting up first response in the landing strip and activating the ambulance service for the evacuation of a patient to secondary or tertiary health care facilities. Special meeting rooms are available within the airport where the concerned actors can coordinate action and communicate efficiently. Based on the initial assessment, the QAIA Competent Health Authority can decide whether to contact the IHR NFP responsible person in the MoH (Central Level).

Non-Aeronautical Emergencies Public Health



Actions:
See Emergency Plan,
Pages: 81- 87

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07th July 2013

Figure 8 – Communication and notification flow for emergencies of public health relevance in QAIA Airport, QAIA Emergency Plan

After landing, passengers can transit in a separate terminal of the airport where line listing and other activities can take place without impacting on the normal functioning of the airport. In the case a patient affected by a notifiable communicable disease is assisted in the QAIA Health Centre, reporting is carried out by the Competent Health Authority/Medical Doctor on call to the MoH Reporting Directorate (intermediate level) as per statutory reporting requirements (see section 3.3). In the case the patient is transferred to a Jordanian hospital facility the reporting will take place there and only an individual transfer form will be compiled at QAIA. Individual transfer forms used at QAIA do not differ from those used elsewhere in Jordan. They include slots for personal data, full

address as well as disease history and vital signs. Travel history is not specifically indicated and can be included in the “remarks” section. If the event meets the IHR requirements for notification, the information is sent by the IHR NFP responsible person to the IHR EIS (event information system). The MoH Reporting Directorate (intermediate level) is in charge reporting the event to the CDS at MoH Central level and of coordinating with the QAIA Competent Health Authority all confirmation procedures and response actions. Bilateral communication will take place among all these actors to ensure feedback information reaches the QAIA Competent Health Authority.

If a passenger or a staff member is sick in the airport premises, the same general process applies. The situation is assessed in the QAIA Health Centre within the airport premises and the on call Medical Doctor/QAIA Competent Health Authority will take action concerning the need for notification, transfer, isolation and will inform concerned actors as appropriate including the IHR NFP responsible person as described above.

Usually the means of rapid communication is the phone. Transfer and notification forms are transferred in paper form by FAX. Details of the person(s) involved in any public health event at QAIA is documented in the Airport Health Centre medical records.

3.4.4.3. Human resources

Four medical doctors (including the Competent Health Authority), four nurses and one inspector are employed full time in the QAIA Health Centre and are involved in the detection and management of human health events in the airport. They also interact with airlines for their support in case line listing of passengers is needed for public health purposes.

The number of trained staff was described by the interviewed QAIA actors as scarce as were the staff’s training possibilities in the last three years on event surveillance, investigation and control at PoE. CBRN threats are managed by a dedicated unit in Amman and specific knowledge on these aspects are not part of the MoH staff curriculum. Informants also mentioned that the high turn-over of staff is a critical aspect.

Health data in QAIA is centralized by the Competent Health Authority who is the member of staff assigned to public health detection reporting and response in QAIA. Very limited analysis of data is performed in the PoE.

3.4.4.4. QAIA airport –coordination between the PoE actors and the Ministry of Agriculture, the FDA and the MoH

A scenario involving coordination of communication in relation to surveillance of events relevant to human health was used to discuss coordination of surveillance among different actors in QAIA during the site visit and is here reported.

The Animal Health focal point of QAIA during an inspection suspects the presence of a zoonotic disease in a party of live animals. In this event, the Animal Health focal points informs both the QAIA Competent Health Authority and its senior in the Ministry of Agriculture. Both the Competent Health Authority and the Ministry of Agriculture would interact at different levels with the Ministry of Health (including the IHR NFP). In case of a food/drug contamination, the Jordanian Food and Drug Authority would contact both the QAIA Competent Health Authority and the Ministry of Health.

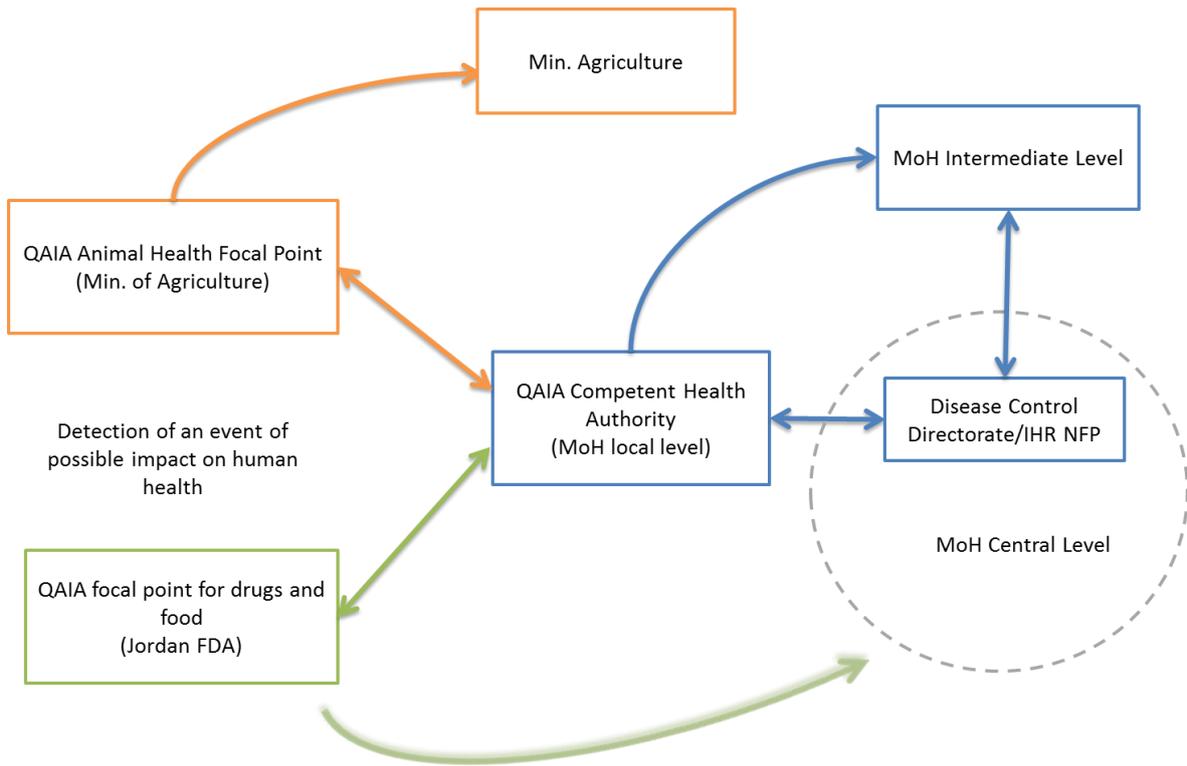


Figure 9 – Communication flows between the Animal Health focal point (Min Agriculture), Jordan FDA and MoH in case of an event with human health implications occurring at QAIA airport

3.4.5. Coordination of human health surveillance at Al Omari Ground Crossing



The border crossing, called Al-Haditha on the Saudi side, and Al-Omari on the Jordanian side, is one of the three land crossings on the eastern side of Jordan. Mainly used as a point of entry for cargo transported on lorries, it is also transited by private cars and private passenger busses.

Per month, in 2012, reportedly about 30,000 people entered Jordan through Al Omari crossing and the same amount of people departed though this route. Reportedly 1,000 lorries carrying cargo pass through Al Omari every day.

Table 5 – Actors involved in the EpiSouth National Situation Analysis in the Al Omari Ground Crossing

Actor	Present the port to be visited?	Notes related to relevance	Involved in the site visit?
Person in charge of human health surveillance	Yes		Yes
Person in charge of animal health surveillance	Yes	This role was studied in QAIA	No
Person in charge of surveillance of food safety	No		No
Person in charge for surveillance of health hazards related to cargo	NA	Only screening for radio-nuclear contamination (Geiger count) is carried out and an irregular cargo is sent to Amman for further testing	NA
NGOs	No	No	No
Medical staff on conveyance (private/public)	No	No	No
People in charge of conveyances	No	No	No
Border control professionals	Yes	The passport control office depends from the Min of Interior. Customs control on goods is managed by a private clearance company	Yes
People in charge of the infrastructure (hub)	Yes	Different Agencies working in the ground crossing manage the hub under the lead of the Min of Interior (crossing manager)	No
Other (Civil Defence)	Yes		Yes

3.4.5.1. General organization

In the premises of the Al Omari Ground Crossing there is a Health Centre of the Ministry of Health that caters for the PoE staff and for travellers crossing the borders. The crossing is located in a desert area that is very poorly inhabited. No outbreaks have been observed in the area for the past four years.

The staff in the Health Centre only has responsibility on human health. Inspection of food in conveyances is carried out in the customs office in Amman or in the Zarqa free zone. A representative of the Ministry of Agriculture is responsible for the health of live animals. Samples are taken on site and animals reside in a dedicated quarantine zone until test results return and the import is either authorized or rejected.



Figure 10 - EpiSouth SA investigators and Al Omari Health Centre staff

All aspects related to communicable disease notification and possible PHEIC communication to the IHR NFP responsible person follow the same processes described in sections 3.3 and 3.4.4.

Passport control staff in the Al Omari ground crossing are only concerned with the control of identity and do not have any training on the detection and assessment of health threats. No leaflets or other health information is actively provided to travellers crossing Al Omari because it is not a site normally used by pilgrims to reach Saudi Arabia.

3.4.5.2. Norms and Legislation

The MoH complies with IHR 2005 through its endorsement in domestic law and with the reporting requirements for communicable diseases depicted in the guidelines updated in 2010. For further details consult the Annex 5.2 to this report (Legal Framework).

3.4.5.3. Human resources

Three medical doctors (each acting in turn as Competent Health Authority) rotate in the health centre with three male nurses. One inspector is present in the crossing once per month to analyse the quality of food sold in a small supermarket in the crossing premises and the water quality. All the staff is Jordanian.

The number of trained staff was described by the interviewed actors as sufficient for the work performed in the crossing. However the staff's training possibilities in the last three years on event surveillance, investigation and control at PoE was reported as scarce. Only clearance papers are prepared and radio-nuclear screening performed in the crossing. CBRN tests are carried out by a special unit in Amman. For this reason these aspects are not part of MoH curriculum. The same is true for food safety as inspections are not carried out in the PoE premises.

3.4.5.4. Al Omari Crossing –communication and coordination of human health surveillance

A scenario involving coordination of communication in relation to human health surveillance was used to discuss coordination among different actors in Al Omari ground crossing and is here reported.

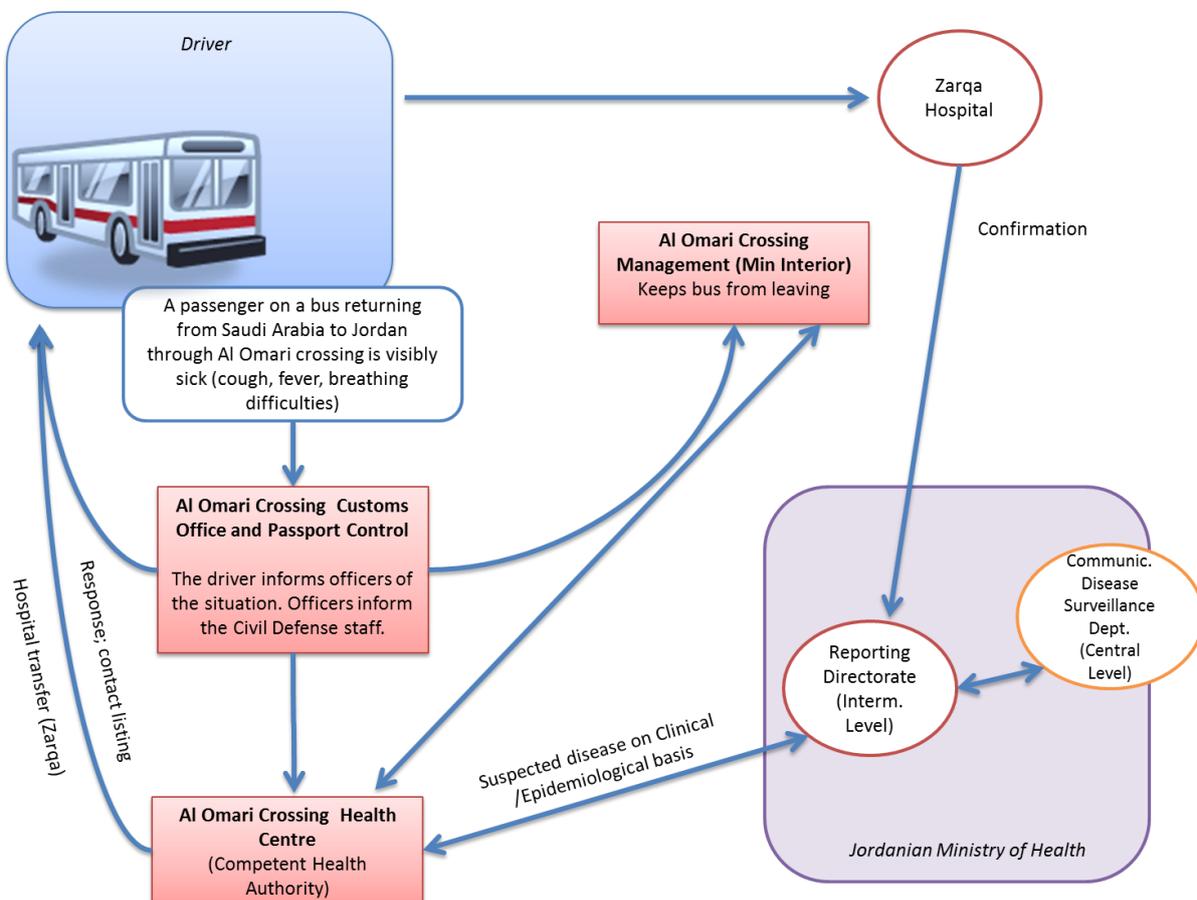


Figure 11 – Health event at Al Omari Ground Crossing, a scenario

Passengers on busses crossing from or into Jordan in Al Omari Ground Crossing normally stay on board while the driver brings all their passports to the control office for formalities. Therefore in case a passenger is sick and in need of health assistance this would need to be signalled by the driver or the passengers to the passport control authorities. These would in turn inform the Crossing Management and the Civil Defence on site who would involve the health centre staff to provide rapid assistance. Transfer to hospital follows the same procedure described in QAIA. The MoH would be informed at the intermediate level by the competent health authority as required on the basis of clinical and epidemiological criteria and by the hospital also on the basis of laboratory confirmation if available.

The Saudi side of the ground crossing might be informed if this is authorized by the Al Omari crossing manager. Conversely transmission of structured data on the event can only be done by the Ministry of Health through the IHR NFP.

3.4.6. Coordination of human health surveillance at Aqaba Port



The Port of Aqaba, owned and operated by the Aqaba Port Corporation, is the only port in Jordan. It is situated in southern Jordan on the north shore of the Gulf of Aqaba on the Red Sea.

It is composed of three areas: the main port, the middle port and the southern industrial port^{26,27}. The main port is close to the town of Aqaba. It comprises 12 berths used for handling general cargo, grain and phosphate export²⁸. The middle port comprises 7 berths.

In this area, cargo, passengers and livestock are handled. Sheep, goat and, to a minor degree, cattle are the main types of livestock imported. The southern port comprises 4 berths used for handling Oil, Timber, and imports & exports of the industrial complex products such as fertilizers, sulfur, salt, potash and chemicals²⁹. In 2012, 3,091 ships and 142 cruises docked in Aqaba port (cruise ships between November and May). 200,000 tourists, 335,000 ferry arrivals and 389,000 ferry departures were recorded in the Port's electronic system for that same year.

Table 6 – Actors involved in the EpiSouth National Situation Analysis in Aqaba port

Actor	Present the port to be visited?	Notes related to relevance	Involved in the site visit?
Person in charge of human health surveillance (Port Corporation)	Yes		Yes
Person in charge of animal health surveillance	Yes	This duty is covered by veterinary services (Ministry of Agriculture).	No
Person in charge of surveillance of food safety	Yes	The food safety aspects are covered by Jordanian FDA	No
Person in charge for surveillance of health hazards related to cargo	Yes	The Port Corporation has appointed a commission on all aspects of safety including chemical and radio-nuclear threats	No
NGOs	No		No
Medical staff on conveyance (private/public)	NA		No
People in charge of conveyances	NA		No
Border control professionals (Harbour office)	Yes		No
People in charge of the port infrastructure (Port Corporation)	Yes		Yes

²⁶<http://www.aqabaports.com.jo/En/Default.aspx>

²⁷http://en.wikipedia.org/wiki/Port_of_Aqaba

²⁸<http://www.aqabaports.com.jo/En/PortMap.aspx?CategoryID=1>

²⁹<http://www.aqabaports.com.jo/En/PortMap.aspx?CategoryID=3>

3.4.6.1. General organization

The Port Corporation has the responsibility over all safety aspects in the Port covering threats posed by biological, chemical and radio-nuclear events. It runs a Port Health Centre staffed by a medical doctor that covers the function of Competent Health Authority and can rely on experts for the early management of chemical and radio-nuclear events. In addition in the terminal of passenger ferries, the Port Corporation runs an additional clinic staffed by nurses that perform first aid if needed at the berth and act as inspectors of the food sold on site by local vendors.

This strong focus on health is due to two factors. Firstly Aqaba Port is the point of entry of many foreigners entering Jordan for work purposes who can request a voluntary certified medical check at the clinics as this is a document to be presented for the request of long term visas. Secondly, Aqaba Port is a PoE frequently used by pilgrims travelling to Saudi Arabia and back. Data on visited officers, crew members and passengers is recorded in paper registers, no structured database exists.

In case of chemical and radio-nuclear event on a ship the Corporation would activate its internal response system and inform the Ministry of Agriculture. In case of an event involving a zoonotic or a communicable disease the health inspector who detected the situation would inform the Competent Health Authority who in turn would inform the general director of the Port Corporation. In case of a severe situation (whether incident or disease) the director would inform directly the Minister of Health. In case of a notifiable disease that does not trigger an emergency, the communication flow is the same as described in QAIA.

3.4.6.2. Norms and Legislation

In the Port environment, the main official document related to health on conveyances is the Maritime Declaration of Health as per article 37 of the IHR . This is fully endorsed by national legislation in Jordan.

No written SOPs regulating coordination and communication processes between the Port and other Central or Intermediate level Institutions exist.

3.4.6.3. Human resources

One medical doctor (Competent Health Authority) is on site from 7 am to 3 pm every day. Twelve nurses and 12 ambulance drivers rotate and provide a 24 hour service in the Health Centre and the ferry terminal clinic described above. The team also includes four health inspectors.

The number of trained staff was described by the interviewed actors as scarce for the work performed in the port as were the staff's training possibilities in the last three years on event surveillance, investigation and control at PoE.

3.4.6.4. Aqaba Port –communication and coordination of human health surveillance

Scenarios involving coordination of communication in relation to human health surveillance was used to discuss coordination among different actors in Aqaba Port and the interactions between the Port Corporation and Jordanian Institutions.

An example was that of a mild case of measles in an adolescent boy on board a cruise ship docked in Aqaba Port. In this case the ship captain would inform, through the ship operator in Aqaba, the Port Corporation of the situation. The Captain and the ship doctor would interact with the Port Corporation and specifically with the Competent Health Authority in Aqaba Port and would decide whether the case could be managed in the Port Health Centre or whether the case should be transferred to the hospital in Aqaba. If the case is assisted in the Port Health Centre the disease would be notified by the Competent Health Authority to the Ministry of Health intermediate level as per surveillance requirements. The Port of Aqaba would not be able to inform directly the next port of call of the cruise ship. This information would be conveyed through the Ministry of Health.

4. Discussion

Coordination of human health related surveillance involving PoE and the MoH in Jordan, as analysed in this study, focussed on communicable diseases but was also able to touch health aspects of chemical and radio nuclear incidents. Thanks to the way the system is organized with focal points of different Ministries and Institutions/Corporations on site in the PoEs, it was possible to analyse the interaction of very different sectors.

One of the strong aspects that emerges from this analysis is the presence of health centres for the most part under the direct control of the Jordanian Ministry of Health at Points of Entry. This link strengthens the reporting chain for communicable diseases that in Jordan is structured in two steps: an intermediate and a central level. Also the IHR NFP location in the Directorate of the Ministry of Health in charge of disease surveillance is an advantage, as is the fact that direct notification to the IHR NFP responsible person is foreseen in case of events at PoE that might meet the criteria for a possible PHEIC.

With the exception of QAIA airport, where written and recently updated local emergency plans with detailed communication protocols for aspects related to public health were available, written SOPs had reportedly not been developed. Nonetheless, guidelines on disease surveillance were present in all the health centres visited and there is consistency in the processes and procedures for health surveillance coordination and communication described in the different Points of Entry and at central level. This denotes a common understanding of how inter-sector work collaborations should function in this specific context. Likewise the role and recognised responsibilities of the Competent Health Authority in all the visited PoE is clearly defined and coherent with strong links both with the CDS and with the IHR NFP functions.

Health Centres at the PoE report diseases according to the statutory notification requirements and contact directly the IHR NFP responsible person in case of a situation that might meet the criteria of a PHEIC. At present however travel history variables are not requested in the two types of forms used at PoE as in the rest of the country: "individual transfer forms"(in case of a patient's transfer to a hospital) and "disease notification forms". The inclusion of these variables in the forms might be considered to facilitate the tracing patients that have travelled across international borders. The collection of data in simple structured databases rather than paper registers in the PoE Health Centres might also be an aspect to explore, to provide health officials in the PoE with easily extractable data and disease trends.

Staffing has emerged as a critical aspect in the PoEs visited in terms of the number of staff assigned at PoE, mostly perceived as insufficient, of the training opportunities offered in the field of event surveillance, investigation and control at PoE and the rapid turn-over of qualified personnel. The latter was mentioned in particular during the visit in QAIA and was explained by the strong migration pull of qualified Jordanian health professionals to Gulf countries that can offer better paid positions.

Jordan has developed a functional net of professionals coordinating action in very different PoE environments: port, airport and ground crossings. In this context the MoH emerges as a strong transversal presence that, except in the Port of Aqaba, also directly delivers health care services and collects data on service provision and on the diseases observed.

5. Annex

- Agenda
- Compiled Checklist
- Legal framework
- National Documents accessed
- Key informants

5.1. LEGAL FRAMEWORK

5.1.1. International norms and regulations

- o **International Health Regulations 2005**

5.1.2. National Legislation³⁰

- **Public Health Law n. 43 1966**
- **Public Health Law n. 21 1977**
- **Public Health Law n. 54 2002**
- **Public Health Law, JO-Law No. 47/2008¹** *is the most important law, which regulates issues related to the public health system in Jordan. It also endorses the International Health Regulations 2005 with a special focus on prevention of diseases with potential for cross-border spread*
- **The General Association for Food and Medicine Law, JO-Law No. 31/2003²** *regulates all matters related to food and medicine to ensure health and safety of food and medicine. The Law also sets regulation to ensure the best quality of food and medicine are supplied to the markets. The Law appoints several committees to conduct inspection and to seize illegal products.*

5.2. RELEVANT DOCUMENTS

- **National Guidelines for Communicable Disease Surveillance, 2010**
- **Jordanian Civil Defence Contingency Plan** *applied by the Crisis and Emergency Unit in the Jordanian Ministry of Health*
- **Governorate level Contingency Plan** *applied at sub-national level and tested through a simulation exercise in 2002 in Zarqa*

³⁰ In addition to the interviewees, this framework has been compiled by consulting <http://lexarabiae.meyer-reumann.com/blog/2010-2/healthcare-in-the-hashemite-kingdom-of-jordan/>

5.3. KEY INFORMANTS

Name	Institution	Location	Position
Abdullah Saleh Sultan	Jordanian MoH	Amman	Medical Officer Communicable Disease Surveillance
Assad Rahhal	Jordanian MoH	Amman	MD, IHR NFP responsible person
Abu Slaih Ahmad Moh'd Ahmad	Jordanian MoH	Amman	Medical Officer Head of Community Medicine Speciality
Mohammad Omush	Jordanian MoH	Queen Alia International Airport	MD, Competent Health Authority
Akram AliEltom	World Health Organization	Amman	WHO Representative Jordan
MohammedThnaibat	Royal Jordanian Airlines	Queen Alia International Airport	Senior Safety Engineer Corporate Safety Dept.
Samer Al- Tayyan	Airport International Group	Queen Alia International Airport	Head Airport Safety Section
Mohammad Al Abbadi	Airport International Group	Queen Alia International Airport	Terminal 2 landside Head of Section
Rani Radi	Jordanian FDA	Queen Alia International Airport	FDA focal point
Alabed Jameel Awad	Jordanian Ministry of Agriculture	Queen Alia International Airport	MoA focal point
Suhail M. Fannous	Jordanian MoH	Al Omari Ground Crossing	MD, Competent Health Authority
IdreesRabaha	Al Omari Ground Crossing Clearance Company	Al Omari Ground Crossing	Customs Cargo control
Abdullah Majeed Al Qarolleh	Port Authority	Aqaba Port	Port Operations
Suhail Ali Alknamauseh	Port Authority	Aqaba Port	Competent Health Authority
Mohammad MousaTarawneh	Port Authority	Aqaba Port	Port Administration
Jamal Enayeh	Port Authority	Aqaba Port	Nurse

5.4. COMPILED CHECKLIST

CHARACTERIZATION OF THE NATIONAL SURVEILLANCE SYSTEMS AND COORDINATION BETWEEN POE AND NHS

1.1) Please indicate the number of designated PoE

a. Ports	1
b. Airports	1
c. Ground crossings	9 (2 designated)

1.2) The Competent Authorities of PoEs report:

- a. Directly to the IHR NFP
- b. To local health authorities
- c. To intermediate level health authorities (21 reporting units)**
- d. To other authorities: specify

1.3) Are there laws/norms in place that regulate coordination of surveillance between PoE and the NHS?

- **Yes**
- No

If yes can those laws/norms be made available to the investigator team?

1.4) Please indicate (for each item on the table) if there is an established link between PoE competent authorities in charge of event detection and the national surveillance system by answering the following questions:

- Q1. Are coordinators designated?
- Q2. Are regularly updated contact details available?
- Q3. Is a decision instrument in place (to define what to detect and how – timing/modules/modalities)?
- Q4. If yes, can this decision instrument be made available to the EpiSouth investigation team?

	Ports				Airports				Ground Crossings			
	Q1? (Y/N)	Q2? (Y/N)	Q3? (Y/N)	Q4? (Y/N)	Q1? (Y/N)	Q2? (Y/N)	Q3? (Y/N)	Q4? (Y/N)	Q1? (Y/N)	Q2? (Y/N)	Q3? (Y/N)	Q4? (Y/N)
Communicable Diseases under surveillance	Y	Y	N	NA	Y	Y	N	NA	N	N	N	NA
Chemical events	Y	Y	N	NA	Y	Y	N	NA	N	N	N	NA
Radiological events	Y	Y	N	NA	Y	Y	N	NA	N	N	N	NA
Food safety issues	Y	Y	N	NA	Y	Y	N	NA	N	N	N	NA
Zoonosis (veterinary side)	Y	Y	N	NA	Y	Y	N	NA	N	N	N	NA
Zoonosis (human side)	Y	Y	N	NA	Y	Y	N	NA	N	N	N	NA

NA= Not applicable

1.5) Please indicate if there are legal constraints hindering coordination of surveillance between Points of Entry and National Health Systems.

No

1.6) Please indicate any interference/interaction/support of existing national plans in implementing/strengthening coordination of surveillance between Points of Entry and National Health Systems.

- Interference: confidentiality aspects in contact tracing
- Interaction:
- **Support:** Public health law no 54 of 2002, revised with law n. 47 of 2008 in accordance to IHR.

COMMUNICATION/COLLABORATION BETWEEN COMPETENT AUTHORITIES AT POINTS OF ENTRY, THE NATIONAL IHR FOCAL POINT AND HEALTH AUTHORITIES AT THE CENTRAL, INTERMEDIATE AND LOCAL LEVELS

2.1) Does the National IHR Focal Point have current contact details of all competent authorities at points of entry?

- **Yes (mostly at the port and airports)**
- No

2.2) Do local, intermediate and national Public Health officials involved in event surveillance and control have current contact details of all competent authorities at points of entry?

- **Yes**
- No

2.3) Are current, regularly updated, documented and tested procedures for routine and urgent communication and collaboration during a public health emergency of international concern in place between the competent authority at PoE and:

- 2.3.1) : the competent authority at other points of entry
 - Yes
 - **No**
 - Not Applicable
- 2.3.2) : health authorities (local, intermediate and national Public Health officials)
 - Yes
 - **No**
 - If needed specify
- 2.3.3) : other relevant government ministries, agencies, government authorities and other partners involved in points of entry activities
 - Yes
 - **No**

2.4) If the answer to questions 2.3.2 is “Yes”, please specify if the communication occurs exclusively with the National IHR Focal Point or if also other health authorities are involved.

2.5) If the answer to questions 2.3.1- 2.3.3 is “Yes”, please specify if the communication occurs both ways or is unilateral.

2.6) If the answer to questions 2.3.1- 2.3.3 is “No”, please specify **No official SOPs are present**

2.7) Describe the mechanisms in place in case of a potential PHEIC at PoE for reporting, assessment, confirmation and response specifying who is in charge of what (upload document word or ppt)

2.8) Do competent authorities at PoE:

	Ports (Y/N)	Airports (Y/N)	Ground crossings (Y/N)
Use the IHR assessment tool to decide if an event should be reported?	Yes	Yes	Yes
Use another decision making tool that is applied in the same way throughout the country?	No	No	No
Each use different decision making tools?	No	No	No
Are national decisional procedures available at PoE?	Yes*	Yes*	Yes*
Are sub-national decisional procedures available at PoE?	Yes*	Yes*	Yes*
Are competent authorities public health officials?	Yes	Yes	Yes

* Contingency plans for emergencies are available

2.9) Is capacity for detecting, reporting (within 24 hrs) a potential PHEIC and initiating response present in designated PoE?

- Fully
- **Partially**
- Not at all

5.5. AGENDA OF THE SITE VISIT TO JORDAN

	Action	Location
25/8	Arrival of participants to Jordan (evening)	Amman, Jor
26/8	Briefing at the Jordanian MoH	Tabarbour, near Prince Hamza Hospital, Amman
	Visit at the Queen Alia International Airport	Jeezah, Capital Amman governorate
27/8	Visit at the Al Omari ground crossing	Jordan – Saudi borders, Zarka governorate
28/8	Visit at the port of Aqaba	Aqaba governorate
29/8	Return from Aqaba and debriefing at the Jordanian MoH	Tabarbour, near Prince Hamza Hospital, Amman
30/8	Departure of participants (morning)	Amman, Jor