

## Current Event

### Challenges with HESN

Challenges with an electronic public health solution for MERS in the Health Electronic Surveillance Network (HESN) are being investigated.

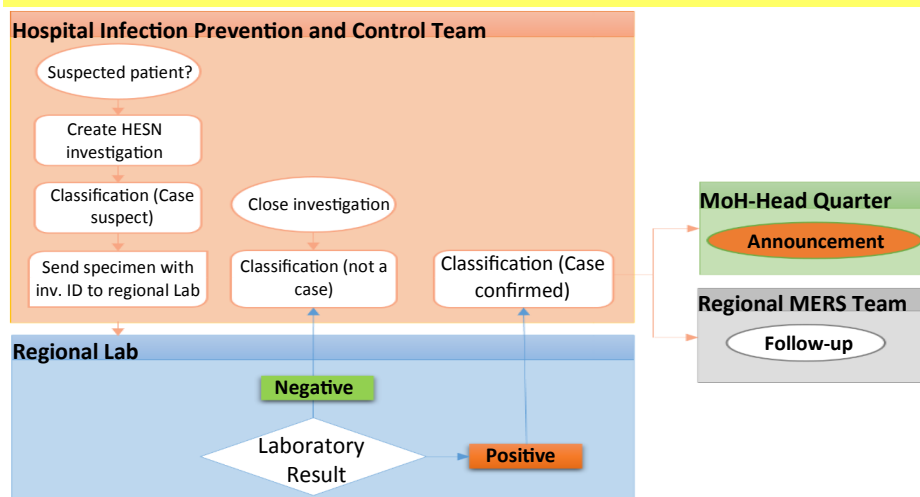
## Editorial Notes

Promoting surveillance capabilities is one of the goals of public health programs. Reporting through HESN may enhance efficiency of data collection for infectious diseases including MERS. In March 2015, the paper work has stopped immediately for MERS and the data entry, registration, notification, follow-up and updating the case classification is done now only through HESN (Figure 1). HESN is activated in all health directorates, sectors, several primary healthcare centers -where connectivity and technology are available- and all hospitals (MoH, non-MoH governmental and the private). So far, the overall number of active users is above 12,000.

Resistance, technical skills deficiencies and data quality issues remain the main challenges. The majority of encountered resistance has been resolved through raising awareness, proper involvement of end-users as well as appreciating the efforts of good performers. On the other hand, regular training and retraining is important to overcome any deficiencies in technical skills and to decrease the length of time for data entry. More than 500 trainers are distributed across the kingdom and the directorates are fully equipped to conduct training sessions in their respective regions.

Data quality plays a critical role with the investigation process of infections, especially with an emerging infection like MERS. Regional MERS and HESN coordinators are continuously following-up issues like missing, inaccurate or outdated data, through cus-

Figure 1: MERS Registration Protocol in HESN



### Cases of MERS-CoV: International Week (IW) No. 15: 17 – 23 Apr 2016

Total	3
Symptomatic (S)	2
Asymptomatic (AS)	1
Healthcare worker (S)	0
Healthcare Worker (AS)	1

tomized data quality screens to each and every health region to follow-up and manage data quality issues. The most commonly missing data are the patient's national/residence identification number, nationality, daily disposition, the specimen tracking information and the user contact details. Overall, data quality has improved significantly.

Commitment and compliance to reporting through HESN is greatly influenced by the support of the Command and Control Centre. Currently, all MERS notifications must be only via HESN, according to a ministerial legal code, and laboratory must not accept MERS-CoV specimens without HESN investigation number. Whenever breach is confirmed, the consequent penalties include fines, imprisonment, license struck off, or closure of the hospital.

**Not reporting suspected MERS cases through HESN is a violation.**

## Recent Publications:

Kim, J. I. et al. The recent ancestry of Middle East respiratory syndrome coronavirus in Korea has been shaped by recombination. *Sci. Rep.* 6, 18825; doi: 10.1038/srep18825 (2016).

### MERS-CoV in KSA 2016\*

Region	Case	Primary	Secondary	U.C.
Qassim	36	10	23	3
Riyadh (1)	28	18	8	2
Jeddah	5	4	0	1
Hail	5	5	0	0
Asir (1)	5	4	1	0
Taif	4	3	1	0
Najran	4	3	0	1
Madinah	2	2	0	0
Eastern Region	2	2	0	0
Al-Ahsaa (1)	2	2	0	0
Al-Baha	1	0	0	1
Bisha	1	1	0	0
Makkah	0	0	0	0
Tabuk	0	0	0	0
Al-Joaf	0	0	0	0
Jazan	0	0	0	0
Northern Borders	0	0	0	0
Qunfotha	0	0	0	0
Hafr Al-Batin	0	0	0	0
Qurayyat	0	0	0	0
<b>Total</b>	<b>95</b>	<b>54</b>	<b>33</b>	<b>8</b>

Case: Confirmed Symptomatic. U.C.: Unclassified cases  
\*Period: Form 3 Jan to 23 Apr 2016  
Regions with new cases of this week are highlighted in yellow.