



Center for Infectious Disease Research and Policy
University of Minnesota

Corporate Leadership Forum March Briefing

March 11, 2015

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- Global infectious disease risk and preparedness
- Ebola virus disease
- Middle East respiratory syndrome coronavirus infection (MERS-CoV)
- Avian influenza
- Influenza vaccine effectiveness
- Chikungunya
- Other infectious disease issues

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Insight Report

Global Risks 2015

10th Edition

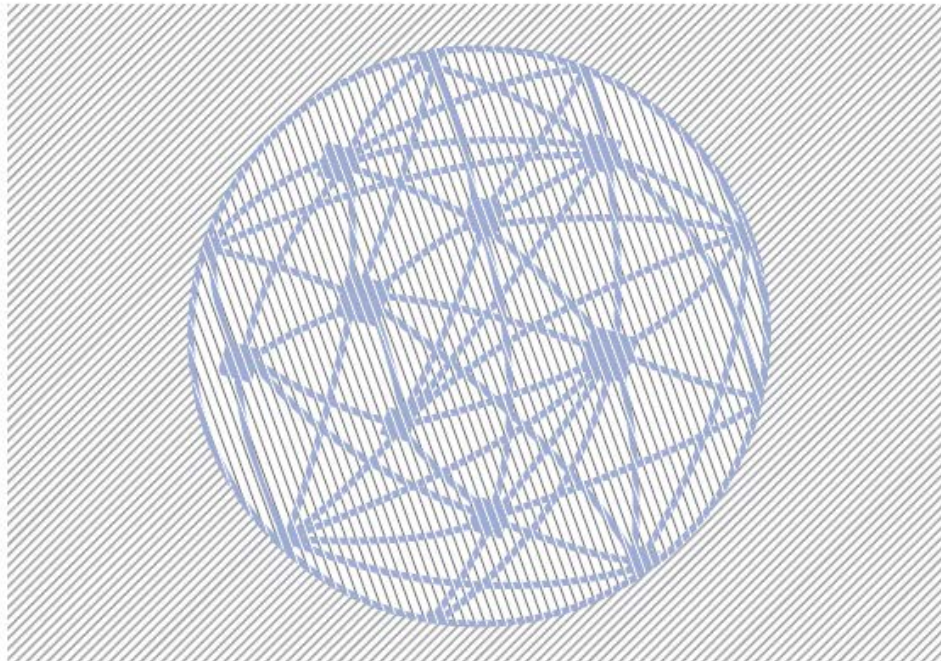
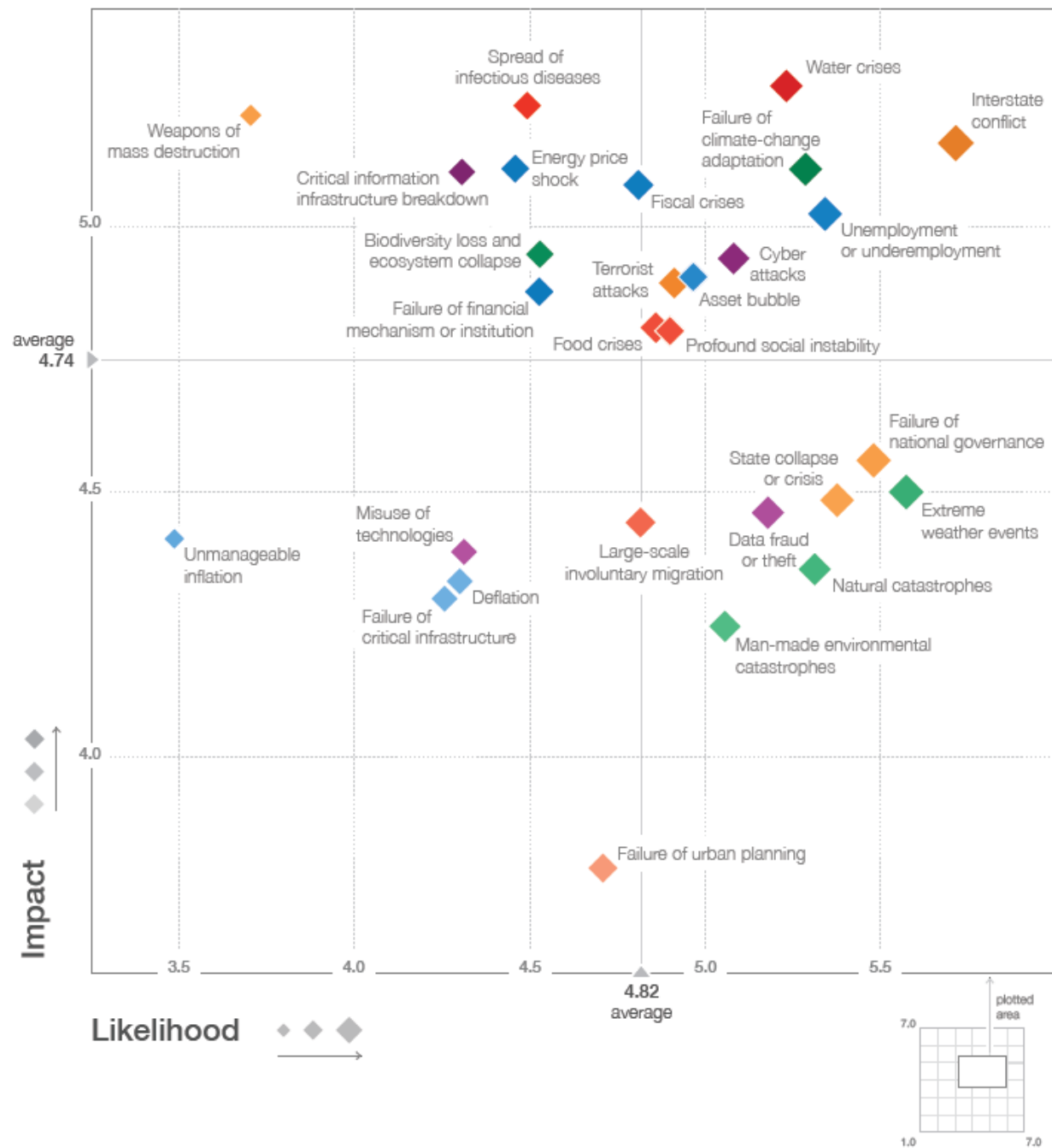


Figure 1: The Global Risks Landscape 2015



Statement for the Record

**Worldwide Threat Assessment
of the
US Intelligence Community**

Senate Armed Services Committee



James R. Clapper

Director of National Intelligence

February 26, 2015

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HUMAN SECURITY

Critical Trends Converging

Several trends are converging that will probably increase the frequency of shocks to human security in 2015. Emerging infectious diseases and deficiencies in international state preparedness to address them remain a threat, exemplified by the epidemic spread of the Ebola virus in West Africa. Extremes in weather combined with public policies that affect food and water supplies will probably exacerbate humanitarian crises. Many states and international institutions will look to the United States in 2015 for leadership to address human security issues, particularly environment and global health, as well as those caused by poor or abusive governance.

Global trends in governance are negative and portend growing instability. Poor and abusive governance threatens the security and rights of individuals and civil society in many countries throughout the world. The overall risk for mass atrocities—driven in part by increasing social mobilization, violent conflict, and a diminishing quality of governance—is growing. Incidents of religious persecution also are on the rise. Legal restrictions on NGOs and the press, particularly those that expose government shortcomings or lobby for reforms, will probably continue.

Infectious Disease Continues To Threaten Human Security Worldwide

Infectious diseases are among the foremost health security threats. A more crowded and interconnected world is increasing the opportunities for human and animal diseases to emerge and spread globally. This has been demonstrated by the emergence of Ebola in West Africa on an unprecedented scale. In

PRESS RELEASE

World Bank Group President: World is ‘Dangerously Unprepared’ for Future Pandemics

January 27, 2015

Kim outlines vision for private, public sectors to work together to lessen risk

WASHINGTON, January 27, 2015— Saying the world was “dangerously unprepared” for future pandemics, World Bank Group President Jim Yong Kim today laid out a vision in which insurance companies, governments, multi-lateral organizations, corporations and international donors worked together to build a system that would help all countries prepare for potentially catastrophic health disasters.

“The Ebola outbreak has been devastating in terms of lives lost and the loss of economic growth in Guinea, Liberia and Sierra Leone,” Kim told an audience at Georgetown University. “We need to make sure that we get to zero cases in this Ebola outbreak. At the same time, we need to prepare for future pandemics that could become far more deadly and infectious than what we have seen so far with Ebola. We must learn the lessons from the Ebola outbreak because there is no doubt we will be faced with other pandemics in the years to come.”

Kim said that the World Bank Group has been working for several months with the World Health Organization, other United Nations agencies, academics, re-insurance company officials and others to work on a concept of developing a pandemic facility; discussions also were held in informal sessions at the World Economic Forum in Davos, Switzerland, last week.

He said he expects that a proposal will be presented in the coming months to leaders of developed and developing countries. While a proposal would likely involve a combination of bonds and insurance instruments, he said that in some ways, a future pandemic response facility was similar to a homeowner’s insurance policy.

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- Other infectious disease issues



World Health
Organization

EBOLA SITUATION REPORT

4 MARCH 2015

CORRIGENDUM AS OF 6 MARCH 2015

CASES/
DEATHS

(data up to 1
March 2015)

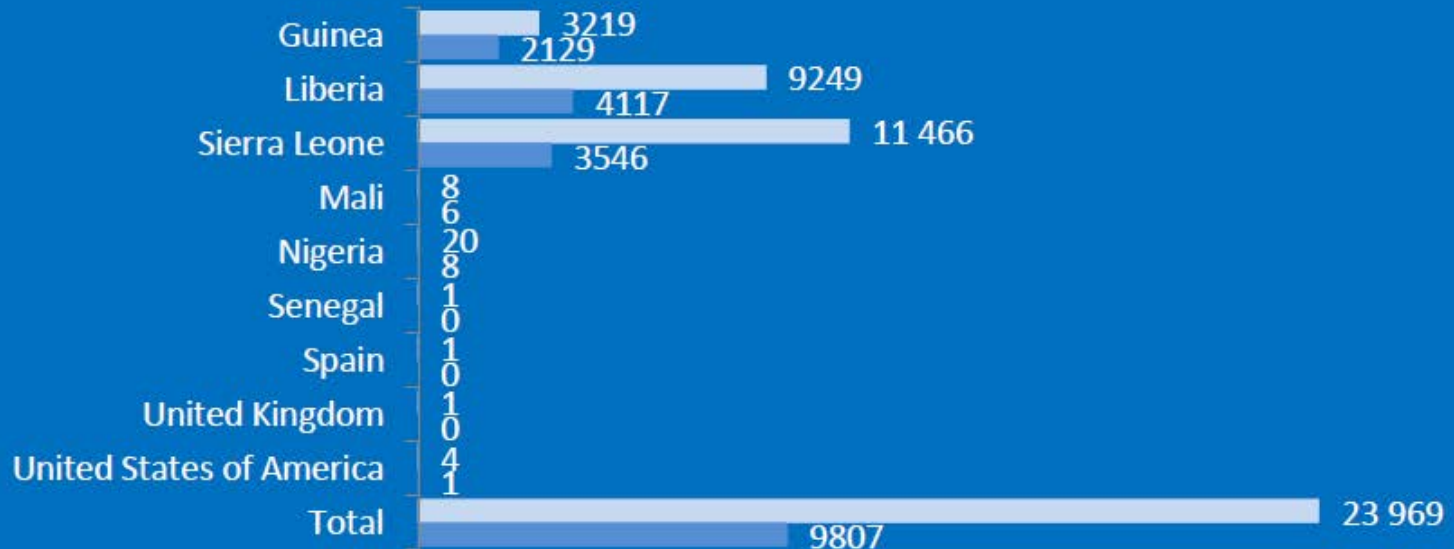
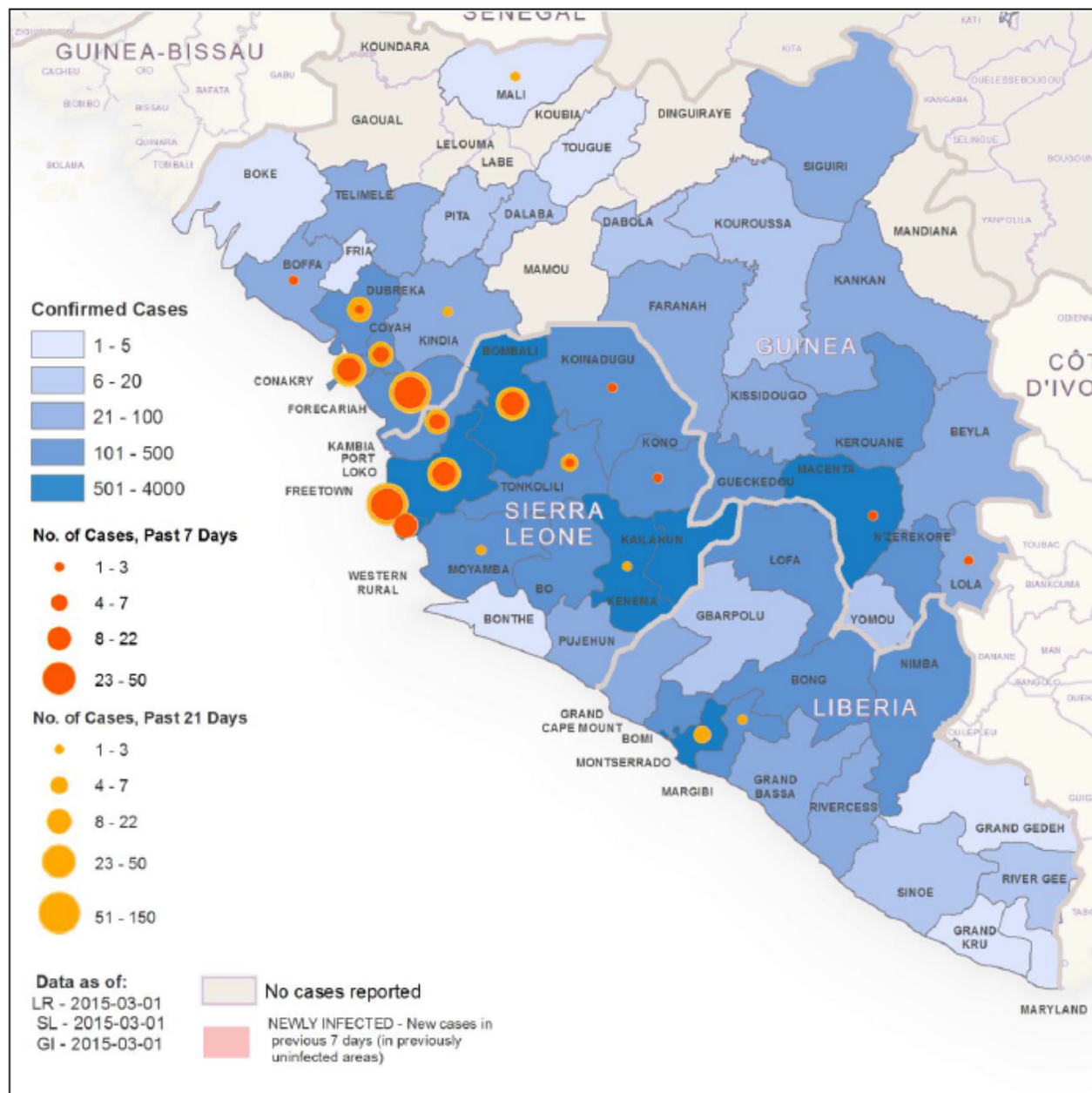
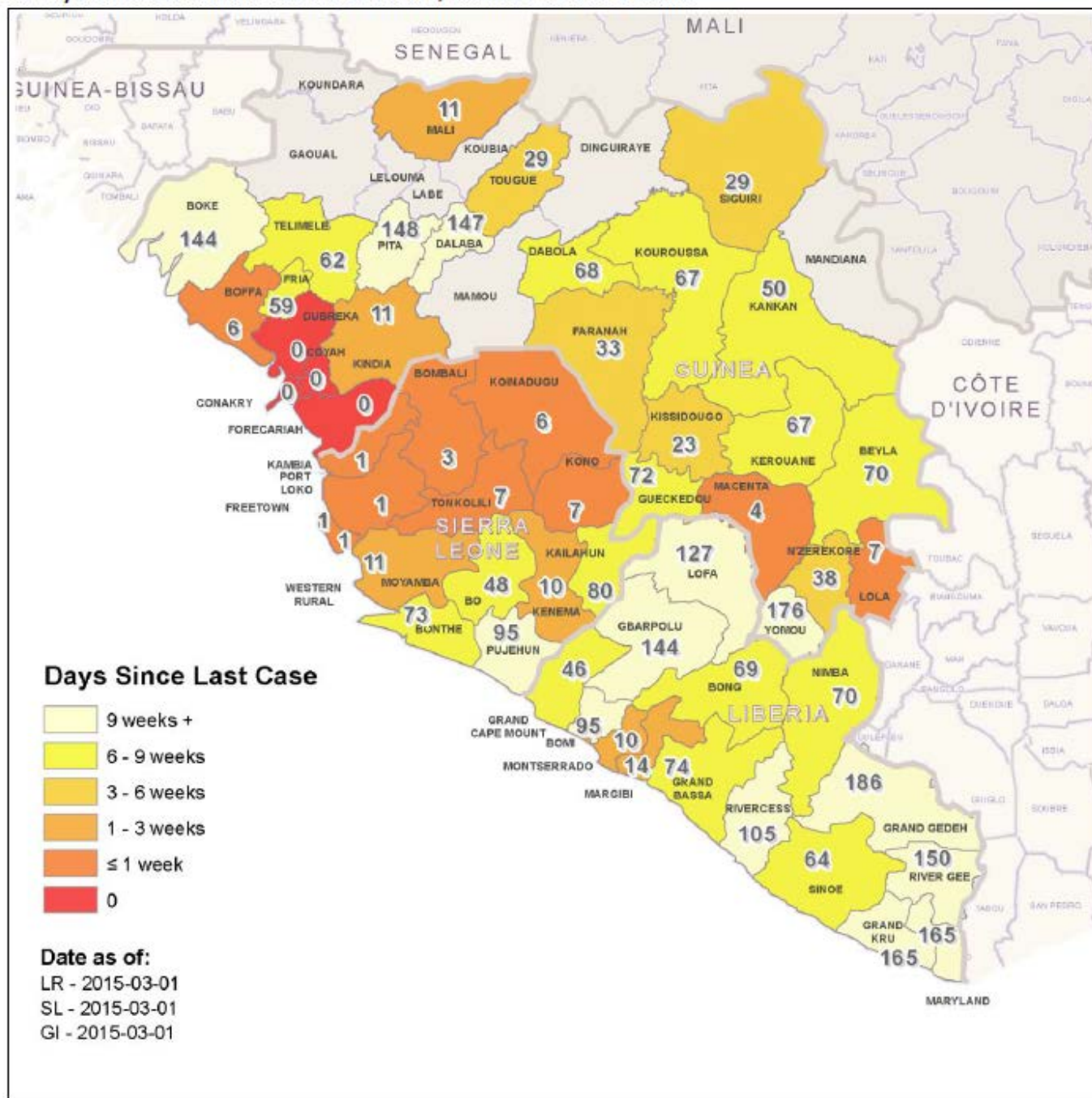


Figure 4: Geographical distribution of new and total confirmed cases



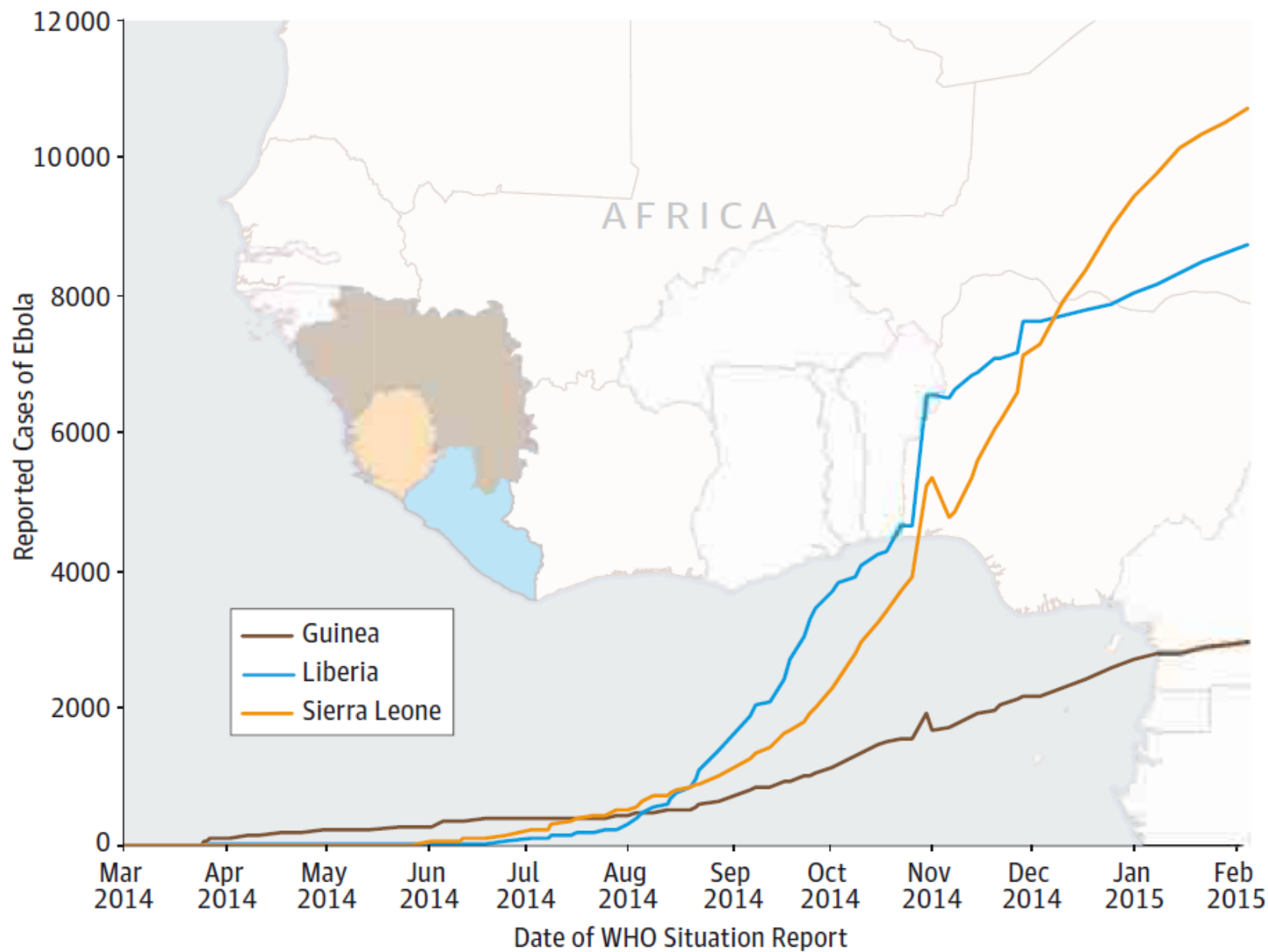
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Figure 5: Days since last confirmed case in Guinea, Liberia and Sierra Leone



1 March is counted as day 0.

Cases of Ebola Virus Disease in Guinea, Liberia, and Sierra Leone, March 25, 2014 - February 1, 2015



Source: Centers for Disease Control and Prevention.

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EU Ebola conference airs response needs, long-term goals

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Tough problems, like community resistance, persist in some Ebola outbreak nations, and another big response by the international community will be needed to get the countries back on their feet after the epidemic, speakers said today at an Ebola meeting in Brussels.

Leaders from African nations and their international partners involved in the Ebola response gathered at a 1-day conference sponsored by the European Union to get a fix on where the outbreak stands, what other steps are needed to get cases to zero, and what the long-term needs are for recovery.

Priorities: research, outreach, economic support

In her address to the group, Doctors without Borders (MSF) President Joanne Liu, MD, said that despite the fall in cases, the mortality rate in treatment centers is still a staggering 50%, a sign that the global response is still failing patients. She called on global experts to develop a practical plan to keep research going for Ebola vaccines, drugs, and diagnostic tests, with the outcome focused on benefits for the outbreak nations.

MSF has been at the forefront of the response since last March and has teams involved in all three countries.

Though fear is part of the normal reaction to such a lethal outbreak, it is still hampering the response, manifested by failed community sensitization and continued attacks on aid workers after a year of battling the disease, especially in Guinea, Liu said. She added that Ebola is being used as a political wedge in some areas and efforts require urgent improvement.

*European External Action Service/Flickr cc*

Leaders of Ebola-stricken countries met with their international partners today in Brussels.



Ebola levels on the rise in Guinea, Sierra Leone

Filed Under: [Ebola](#); [VHF](#)

[Lisa Schnirring](#) | [Staff Writer](#) | [CIDRAP News](#) | Mar 04, 2015

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Reflecting the tough challenge responders have in getting Ebola cases to zero, the number of confirmed infections increased in Guinea and Sierra Leone last week, with new cases popping up outside of known transmission chains and a number of Ebola detections found only after people died from the disease in their communities, the World Health Organization (WHO) said today in its weekly update on outbreak patterns.

Meanwhile, Liberia for the first time went a week without a confirmed case. The country reported only one confirmed case the week before.

Overall, 132 newly confirmed cases were reported in the outbreak countries last week, compared with 99 reported the week before, the WHO said. The latest reports lift the region's number of confirmed, probable, and suspected cases to 23,924, with the number of deaths rising to 9,792.

Worrisome trends in Guinea

Guinea reported 51 new cases, 16 more than the previous week. The hot spots were three neighboring areas in the western part of the country: Conakry, Coyah, and Forecariah. Two new confirmed case were also reported in Macenta district, which had not reported a case for 4 weeks. Low levels of transmission were also seen in Lola district, an area that borders Ivory Coast.

The number of security incidents dropped from the previous week; four districts reported at least one, compared with nearly a third of Guinea's 34 prefectures the week before.

Problems have been related to suspicions that responders are spreading Ebola. Aside from the risks posed to aid workers from violent attacks, community resistance has made it tough for workers to do two key steps that help curb the disease: identify sick people in the community and get them into isolation, and conduct contact tracing.



UN Development Program, Dylan Lowthian / Flickr cc

Liberia Ebola vaccine trial 'challenging' as cases tumble

Sat, Jan 24 2015

By [Ben Hirschler](#)

DAVOS, Switzerland (Reuters) - A steep fall in Ebola cases in Liberia will make it hard to prove whether experimental vaccines work in a major clinical trial about to start in the country, the head of the U.S. National Institutes of Health (NIH) said on Saturday.

The NIH might have to move some testing to neighboring Sierra Leone, while regulators could end up approving Ebola shots based on efficacy data from animal tests backed by only limited human evidence, Francis Collins told Reuters.

Liberia, once the epicenter of West Africa's deadly Ebola epidemic, has just five remaining confirmed cases of the disease, a senior health official has said.

The sharp decrease in cases is clearly good news, but it poses a problem for scientists from the NIH, GlaxoSmithKline and Merck, who want to enroll 27,000 people at risk of infection in the pivotal



February 2015

Recommendations for Accelerating the Development of Ebola Vaccines

REPORT & ANALYSIS

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UN: Funds urgently needed to tackle Ebola obstacles

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Two top officials leading the global Ebola response said today that the small increase in Ebola activity in the outbreak region isn't surprising and that a fresh infusion of cash is needed now to continue funding key response activities such as contact tracing.

Yesterday the World Health Organization (WHO) reported that the number of confirmed cases was slightly up in all three hard-hit countries (Guinea, Liberia, and Sierra Leone) for the first time this year, following weeks of decline, especially in Liberia.

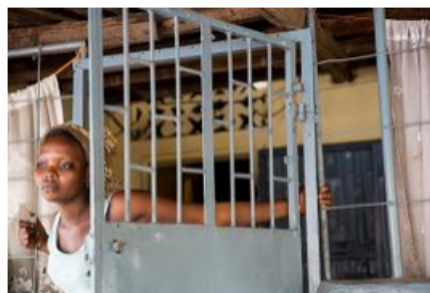
Speaking to reporters at a media briefing in Geneva, David Nabarro, MD, the United Nations' special Ebola representative, said good progress is being made with the response, but, that "The outbreak is not yet under control" and still presents a great threat.

Funds needed ahead of rainy season

The international community has been generous with its donations to the massive response, said Nabarro, but the outbreak is at a crucial phase. Funds are needed now to exploit a 2-month window of opportunity for getting out into communities before the rainy seasons sets in, which is expected to bog down the response and make it difficult to reach rural areas reporting new cases.

Response leaders recently reassessed what they will need to battle the virus from January through June and identified a \$1 billion gap. "Please continue that generosity, because the job is absolutely not finished," Nabarro said.

He countered a Feb 3 *BMJ* report that suggested slow and incomplete international funding has hampered the response. "That's not what I've seen in my six visits to the region," he said, noting that between October and December, \$850 million was spent in the region on the response, with about 75% of the UN's request coming through by the end of the year.



UNMEER / Flickr cc

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UN seeks \$900 million for phase 2 Ebola response

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The global Ebola response is facing a funding shortfall as officials race to get the outbreak curve heading downward again ahead of the impending rainy season, top officials said last week in a plea to donors at the United Nations (UN) General Assembly.

Speaking to reporters in Geneva after the meeting, Bruce Aylward, MD, MPH, World Health Organization (WHO) assistant director-general in charge of Ebola outbreak response, said funds to keep the response going are falling faster than disease levels. He added that stalled progress in getting cases to zero is one of the most worrisome aspects of outbreak.

Though the first 4 weeks of 2015 were encouraging, with an overall steep drop in cases across the region, the past 4 weeks saw progress flatten, with 120 to 150 new confirmed cases reported each week. "This is not what you want to see with Ebola," he said. With cases still being reported in the capitals of each of the three affected West African countries, Aylward called the situation "deeply concerning."

David Nabarro, MD, the UN's special Ebola representative, said the epidemiologic detective work involved in case finding and contact tracing requires many people, and though the UN is committed to working closely with the affected countries, more resources are needed to get the job done.

The need for the UN-led Ebola mission for 2015 is \$1.5 billion, and so far the group has raised only \$600 million, for a \$900 million gap, he said, adding that without full funding, it's difficult to keep hundreds of staff in the region. "At the moment, we're worried," Nabarro said.



Sylvain Cherkaoui / European Commission DG ECHO / Flickr cc

Women carry out activities on a roadway near an Ebola treatment center in Guinea.

Transmission of Ebola Viruses: What We Know and What We Do Not Know

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ABSTRACT Available evidence demonstrates that direct patient contact and contact with infectious body fluids are the primary modes for Ebola virus transmission, but this is based on a limited number of studies. Key areas requiring further study include (i) the role of aerosol transmission (either via large droplets or small particles in the vicinity of source patients), (ii) the role of environmental contamination and fomite transmission, (iii) the degree to which minimally or mildly ill persons transmit infection, (iv) how long clinically relevant infectiousness persists, (v) the role that “superspreading events” may play in driving transmission dynamics, (vi) whether strain differences or repeated serial passage in outbreak settings can impact virus transmission, and (vii) what role sylvatic or domestic animals could play in outbreak propagation, particularly during major epidemics such as the 2013–2015 West Africa situation. In this review, we address what we know and what we do not know about Ebola virus transmission. We also hypothesize that Ebola viruses have the potential to be respiratory pathogens with primary respiratory spread.

PAST EBOLA OUTBREAKS

Between the first recognized outbreak of Ebola virus disease (EVD) in 1976 and the onset of the 2013–2015 Ebola epidemic in West Africa, 24 outbreaks of EVD involving approximately 2,400 reported cases had been recognized by the World Health Organization (WHO) (1). One additional outbreak involving 69 cases occurred in the Democratic Republic of the Congo (DRC) between July and October 2014 (2). To date, five species of Ebola viruses have been identified; four from Africa (Zaire, Sudan, Bundibugyo, and Tai Forest) and one from the Philippines (Reston) (1, 3, 4). Most pre-2013 outbreaks were caused by Zaire Ebola virus (EBOV) (14 outbreaks) or Sudan virus (SUDV) (7 outbreaks); Bundibugyo virus (BDBV) caused two outbreaks, and Tai Forest virus (TAFV) was identified in a single case from Côte d’Ivoire (1). Outbreaks caused by Reston virus (RESTV) have occurred in nonhuman primates and pigs, with associated asymptomatic human infections (5).

Only seven outbreaks involved more than 100 reported cases. The maximum number of generations of human-to-human transmission for these outbreaks is unknown but is likely relatively low. One report estimated 15 generations of viral transmission during a 1976 SUDV outbreak (284 cases), which was the most that were identified (6). Investigators recorded four generations of spread during the EBOV outbreak in Kikwit, DRC (315 cases) (7).

Many experts have concluded that the extensive transmission documented in the 2013–2015 West Africa epidemic is due to societal factors (poverty, urban density, population migration patterns, and poor health care and public health infrastructure) rather than unique biological characteristics of the agent (8, 9). Limited data are available, however, regarding

virus genomics (affecting phenotype/pathotype), patient viral loads, and certain epidemiological features for this unique EBOV strain. Furthermore, information about Ebola virus transmission in humans remains incomplete, given the relatively small number of outbreak investigations and cases recognized before 2013; as a result, additional questions remain (10). In this review, we explore what we know—and what we do not know—about Ebola virus transmission.

WHAT WE KNOW ABOUT EBOLA VIRUS TRANSMISSION IN HUMANS

Past outbreaks provide opportunities to examine human-to-human transmission of Ebola viruses. Spread within hospitals has been documented repeatedly, and outbreak amplification has occurred in health care settings for both EBOV and SUDV (6, 7, 11). Early outbreak investigations demonstrated the importance of parenteral transmission via nonsterile needles, although this has not been noted more recently (6, 11). In addition, investigators have shown that health care workers are at particularly high risk (6, 7, 11, 12). Use of barrier protection

Published 19 February 2015

Citation Osterholm MT, Moore KA, Kelley NS, Brosseau LM, Wong G, Murphy FA, Peters CJ, LeDuc JW, Russell PK, Van Herp M, Kapetshi J, Muyembe J-JT, Ilunga BK, Strong JE, Grolla A, Wolz A, Kargbo B, Kargbo DK, Formenty P, Sanders DA, Kobinger GP. 2015. Transmission of Ebola viruses: what we know and what we do not know. *mBio* 6(2):e00137-15. doi:10.1128/mBio.00137-15.

Editor Michael J. Imperiale, University of Michigan

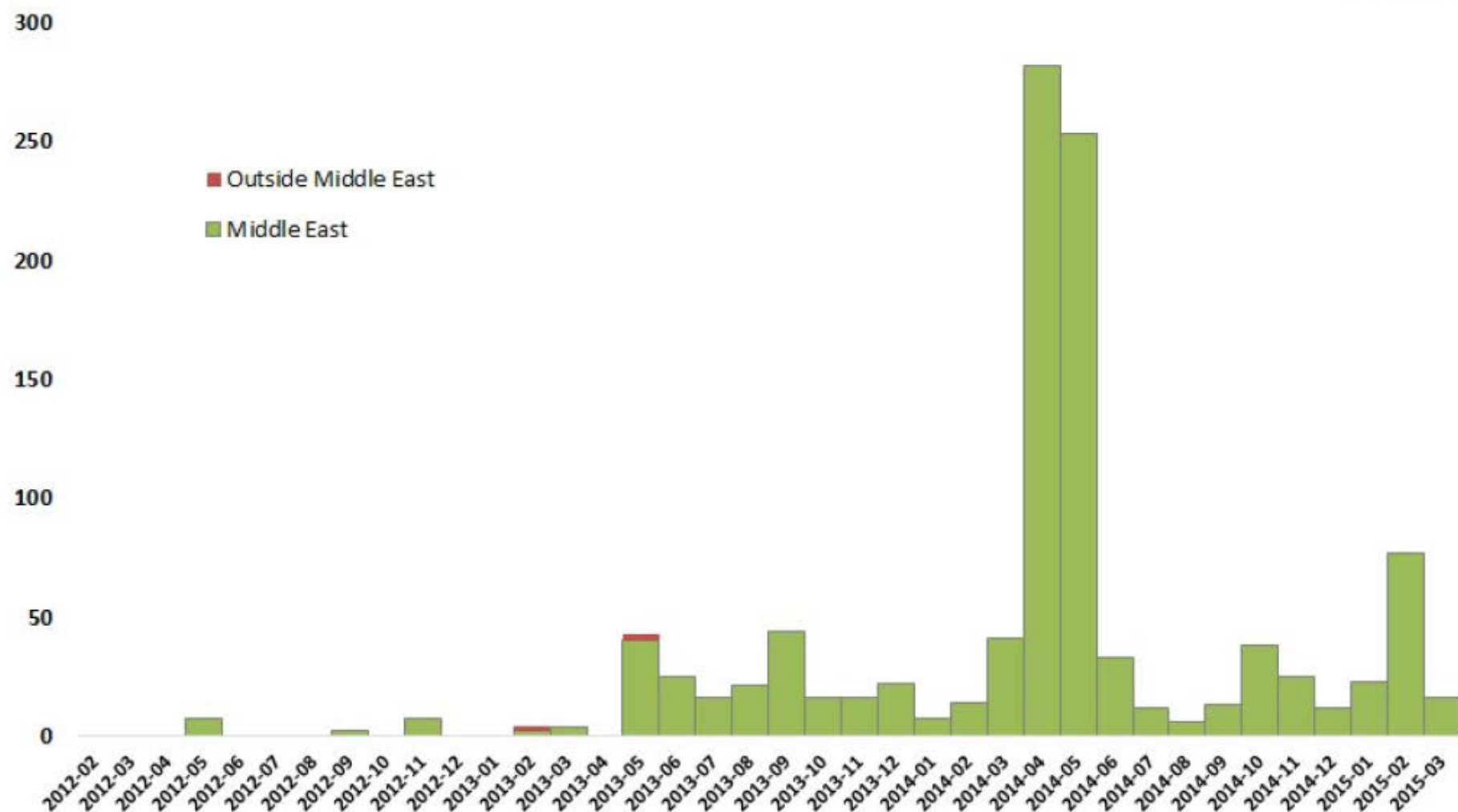
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- Other infectious disease issues

Distribution of confirmed cases of MERS-CoV by first available date and place of probable infection, March 2012 – 06 March 2015 (n=1079)

Source: ECDC





Saudi Arabia reports 12 MERS cases; UAE adds 1

Filed Under: [MERS-CoV](#)

[Robert Roos](#) | [News Editor](#) | [CIDRAP News](#) | [Feb 12, 2015](#)

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The winter pace of new MERS cases quickened yesterday and today with reports of a dozen more across Saudi Arabia, one of them fatal, and a fatal case in the United Arab Emirates (UAE).

In addition, in a statement about 10 previously reported Saudi cases, the World Health Organization (WHO) said three of the patients were from the same household, and the first of those to get sick owns a camel farm.

Twelve cases, eight cities

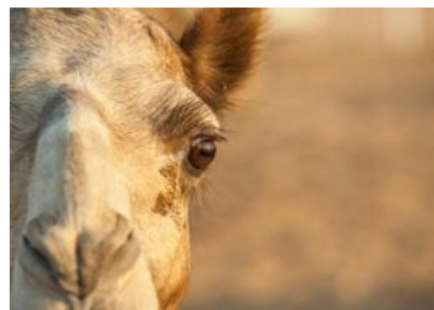
The 12 cases reported by the Saudi Ministry of Health (MOH) include 5 yesterday and 7 more today, scattered among eight cities, with four patients from Riyadh.

The five cases cited yesterday are in five different cities. One of the five patients died, two are healthcare workers, three are non-Saudis, and only one is older than 50.

The patient who died was a 73-year-old male expatriate in Jeddah who had preexisting disease, the MOH said. He had no exposure to animals or other MERS patients.

The two healthcare workers are a 48-year-old man in critical condition in Buraidah and a 31-year-old woman in stable condition in Khobar, both of them expatriates. Authorities are investigating whether the man had contact with other MERS patients in a healthcare setting, but neither patient was exposed to MERS patients in the community or to animals.

The other two patients, both Saudis, are a 27-year-old woman in stable condition in Unaizah and a 41-year-old man in Riyadh who is in critical condition. Both have preexisting diseases. Neither was exposed to animals or to MERS patients in the community, but in the man's case officials are investigating possible contact with a MERS patient in a healthcare setting.



Mariia Savoskula / iStock

The WHO reported a 3-person family cluster, including a 76-year-old who owns a camel farm and frequently drinks unpasteurized camel milk.



MERS count rises in Saudi Arabia, Germany, Qatar

Filed Under: **MERS-CoV**

Robert Roos and Lisa Schnirring | Staff Writers | CIDRAP News | Mar 09, 2015



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The late-winter stream of MERS cases in Saudi Arabia continued with seven more reported over the past 3 days, while Germany reported a case imported from the United Arab Emirates (UAE) and Qatar cited its second case of the year.

The latest cases in Saudi Arabia included one reported by the Saudi Ministry of Health (MOH) Mar 7, two reported Mar 8, and four more noted today. Six patients are from Riyadh and one is from Hofuf in the eastern province; all but two of them are men. Four are in critical condition and three are stable. Their ages range from 37 to 61.

Just one healthcare worker, a 37-year-old foreigner in Riyadh, is among the seven patients. None of them were exposed to animals or to other MERS-CoV (Middle East respiratory syndrome coronavirus) patients in community settings before their illnesses, but possible exposure in healthcare settings is under investigation in four cases.

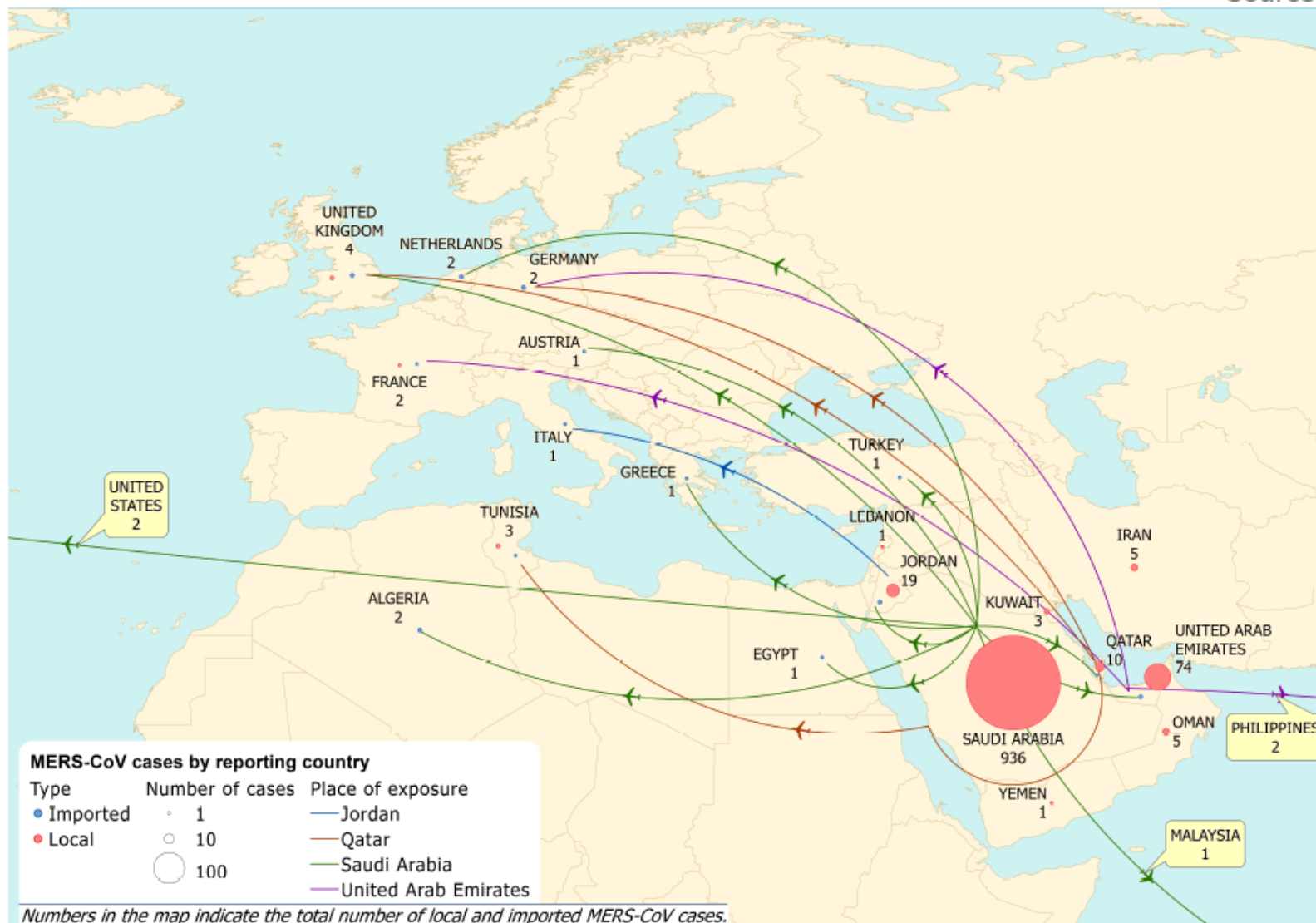


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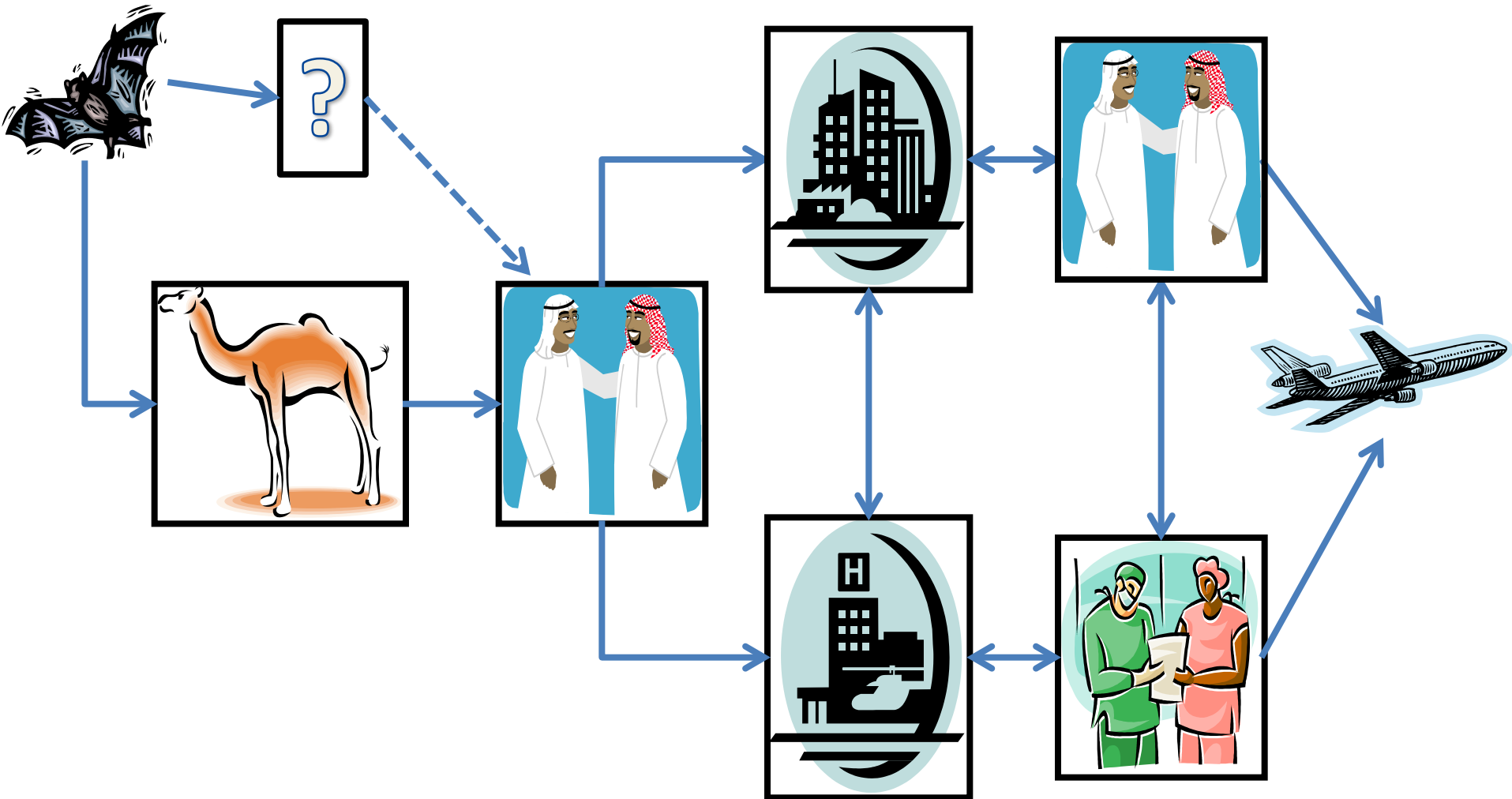
Most of the newly reported patients are in critical condition.

Geographical distribution of confirmed MERS-CoV cases and place of probable infection, worldwide, as of 06 March 2015 (n=1079)

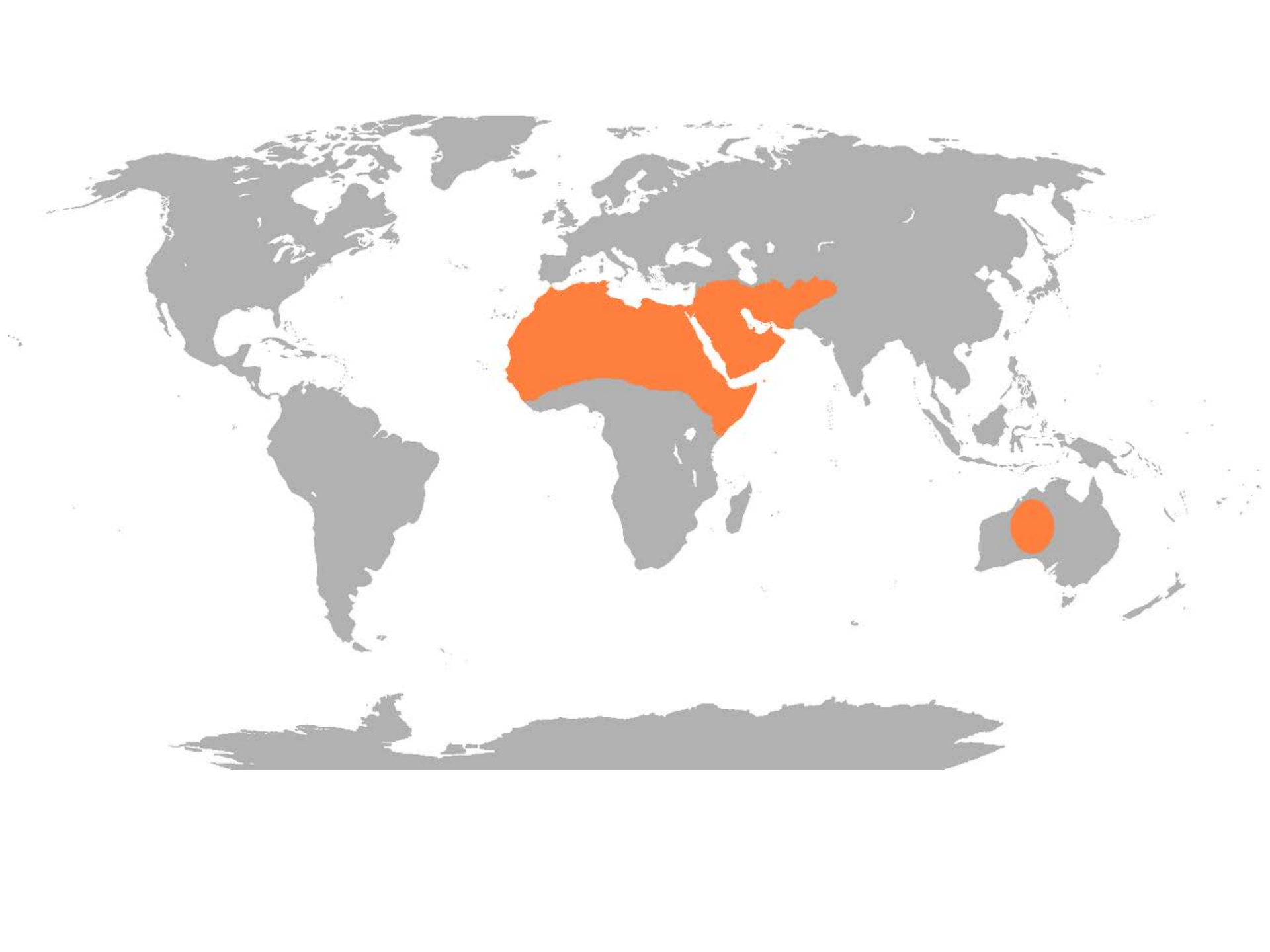
Source: ECDC



The MERS Transmission Model









Morbidity and Mortality Weekly Report (MMWR)

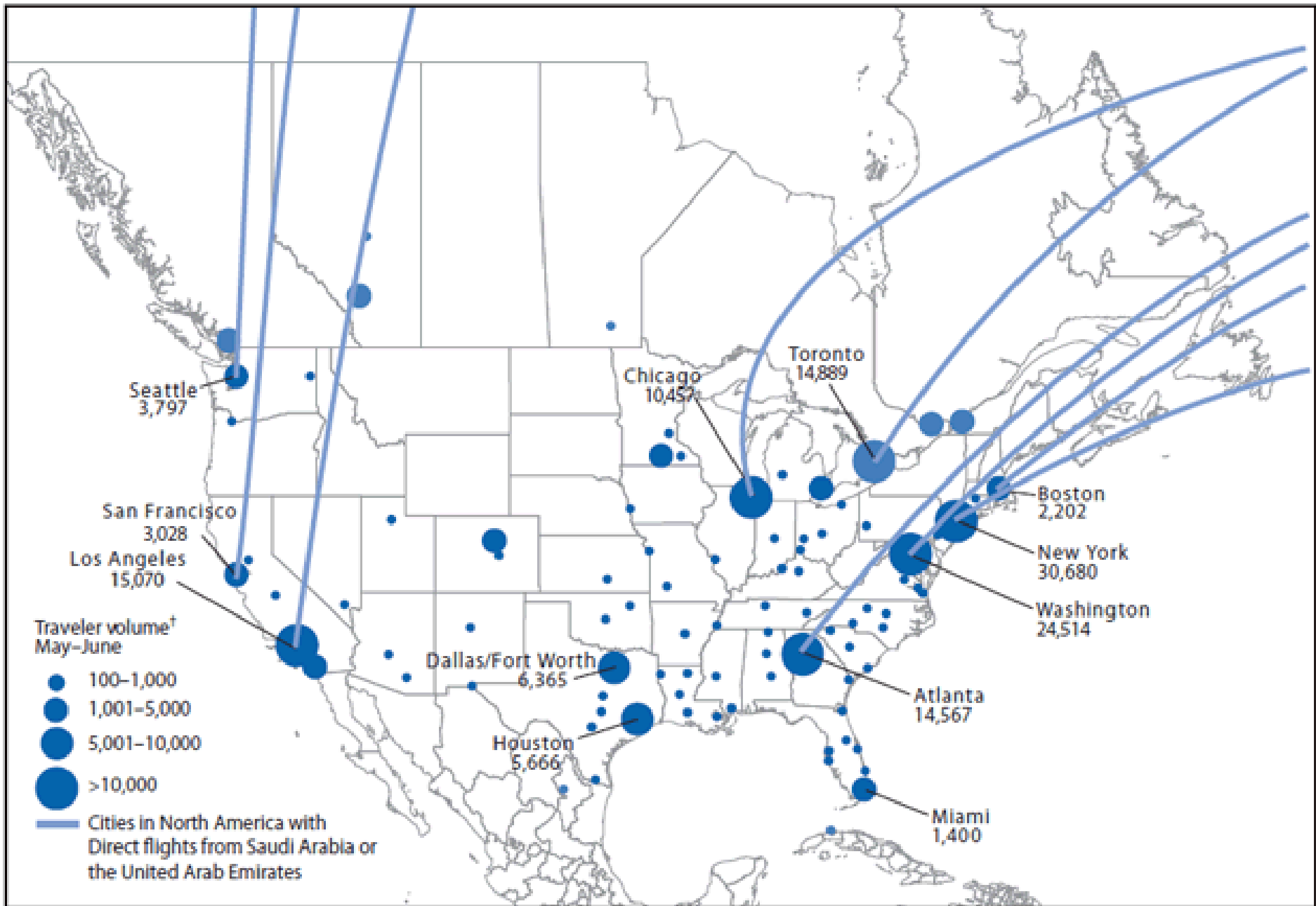
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First Confirmed Cases of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) Infection in the United States, Updated Information on the Epidemiology of MERS-CoV Infection, and Guidance for the Public, Clinicians, and Public Health Authorities – May 2014

On May 14, 2014, this report was posted as an MMWR Early Release on the MMWR website (<http://www.cdc.gov/mmwr>).

Weekly**May 16, 2014 / 63(19);431-436**

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MERS

- More data gaps than knowledge
 - Transmission
 - Prevention
 - Treatment
- Similar to SARS but different
- Air travel has changed significantly

- Global infectious disease risk and preparedness
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- Other infectious disease issues



Global Alert and Response (GAR)

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Human infection with avian influenza A(H7N9) virus – China

Disease outbreak news

26 February 2015

On 23 February 2015, the Department of Health, Hong Kong Special Administrative Region (SAR), China notified WHO of 1 additional laboratory-confirmed case of human infection with avian influenza A(H7N9) virus.

Details of the case are as follows

A 61-year-old man from Hong Kong SAR developed symptoms on 16 February and consulted a private doctor on the same day. He was admitted to hospital on 20 February. The patient travelled to Zhangmutou, Dongguan, Guangdong, from 6 to 8 February and from 14 to 15 February. He visited a wet market on 14 February and bought two slaughtered chickens. Based on the available information, it is considered that the patient was infected outside Hong Kong. Currently, he is in critical condition.

The Centre for Health Protection, Hong Kong is tracing the contacts of the patient.

WHO continues to closely monitor the H7N9 situation and conduct risk assessment. So far, the overall risk associated with the H7N9 virus has not changed.

WHO advice

WHO advises that travellers to countries with known outbreaks of avian influenza should avoid poultry farms, or contact with animals in live bird markets, or entering areas where poultry may be slaughtered, or contact with any surfaces that appear to be contaminated with faeces from poultry or other animals. Travellers should also wash their hands often with soap and water. Travellers should follow good food safety and good food hygiene practices.

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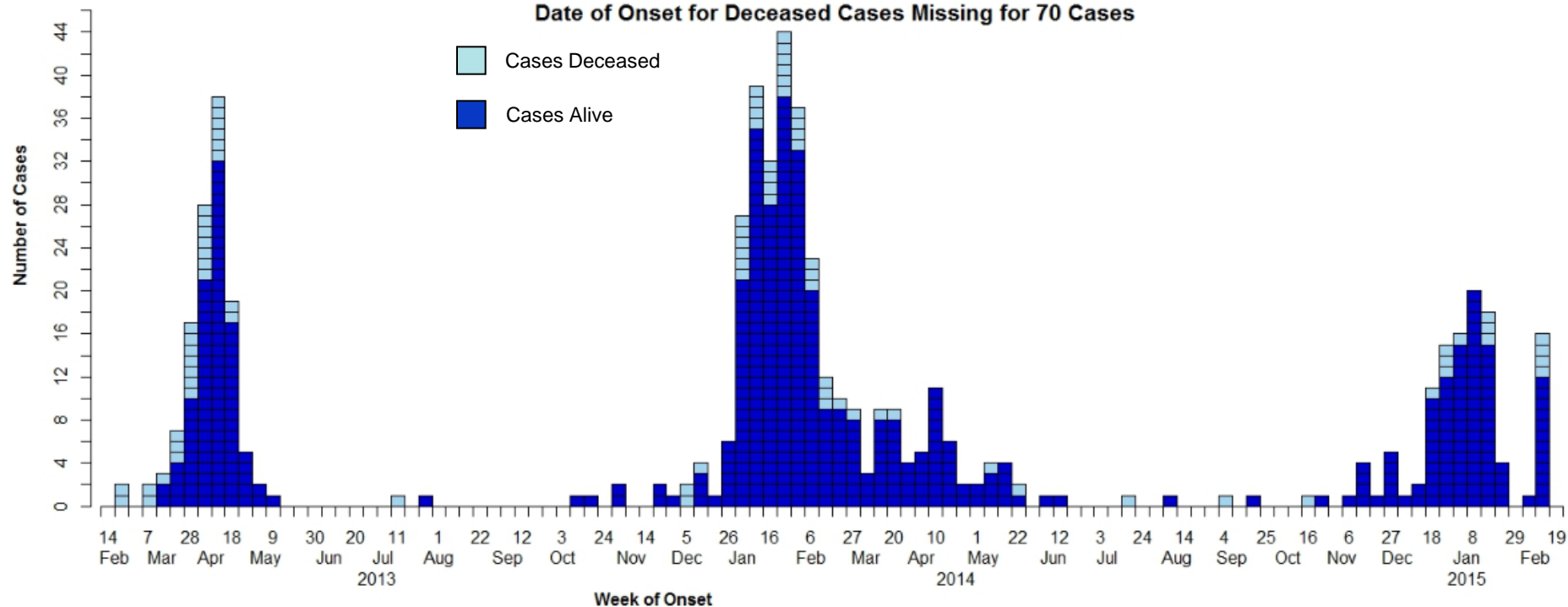
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Cases of H7N9 Influenza in China by Week of Onset (Feb 23, 2015)

608 Total Cases:152 Deaths

Date of Onset Missing for 30 Cases

Date of Onset for Deceased Cases Missing for 70 Cases

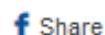




Flu Scan for Mar 09, 2015

H7N9 cases surge in China; New H5N1 cases in Egypt; Flu vaccine during pregnancy

Filed Under: [Avian Influenza \(Bird Flu\)](#); [H7N9 Avian Influenza](#); [Influenza Vaccines](#)

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Nineteen more H7N9 cases reported in China

Nineteen new H7N9 avian influenza cases have been reported in seven of China's provinces over the past 3 days, though basic epidemiologic details are known for only six of them, according to official reports, including health department notices translated and posted by FluTrackers, an infectious disease news message board.

Nine of the cases are from Zhejiang province. Three of the case-patients are a 57-year-old man in Changshan County and two men, 49 and 76, from Jinhua. The illness in the older man was first reported in the Chinese media in late February; he has now died from his infection.

Six other H7N9 infections in Zhejiang province were noted in an update today from Hong Kong's Centre for Health Protection (CHP), though no other details were available other than that the illness onsets for a batch of 19 cases, some previously known, occurred in the past 5 weeks.

Today's CHP report—based on information from mainland health authorities—also included six other H7N9 cases that hadn't been reported before, though no epidemiologic information was included. They included 3 cases from Jiangsu province, 2 cases from Hunan province, and 1 case from Guizhou province.

Location of H7N9 Influenza in China (3/7/15)*

*626 total cases/153 deaths

Province/ City	Number of Cases
-------------------	--------------------

Anhui	25
-------	----

Beijing	6
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Fujian	58
--------	----

Guangdong	195
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Guizhou	1
---------	---

Guangxi	3
---------	---

Hebei	1
-------	---

Henan	4
-------	---

Hunan	24
-------	----

Jiangsu	68
---------	----

Jiangxi	10
---------	----

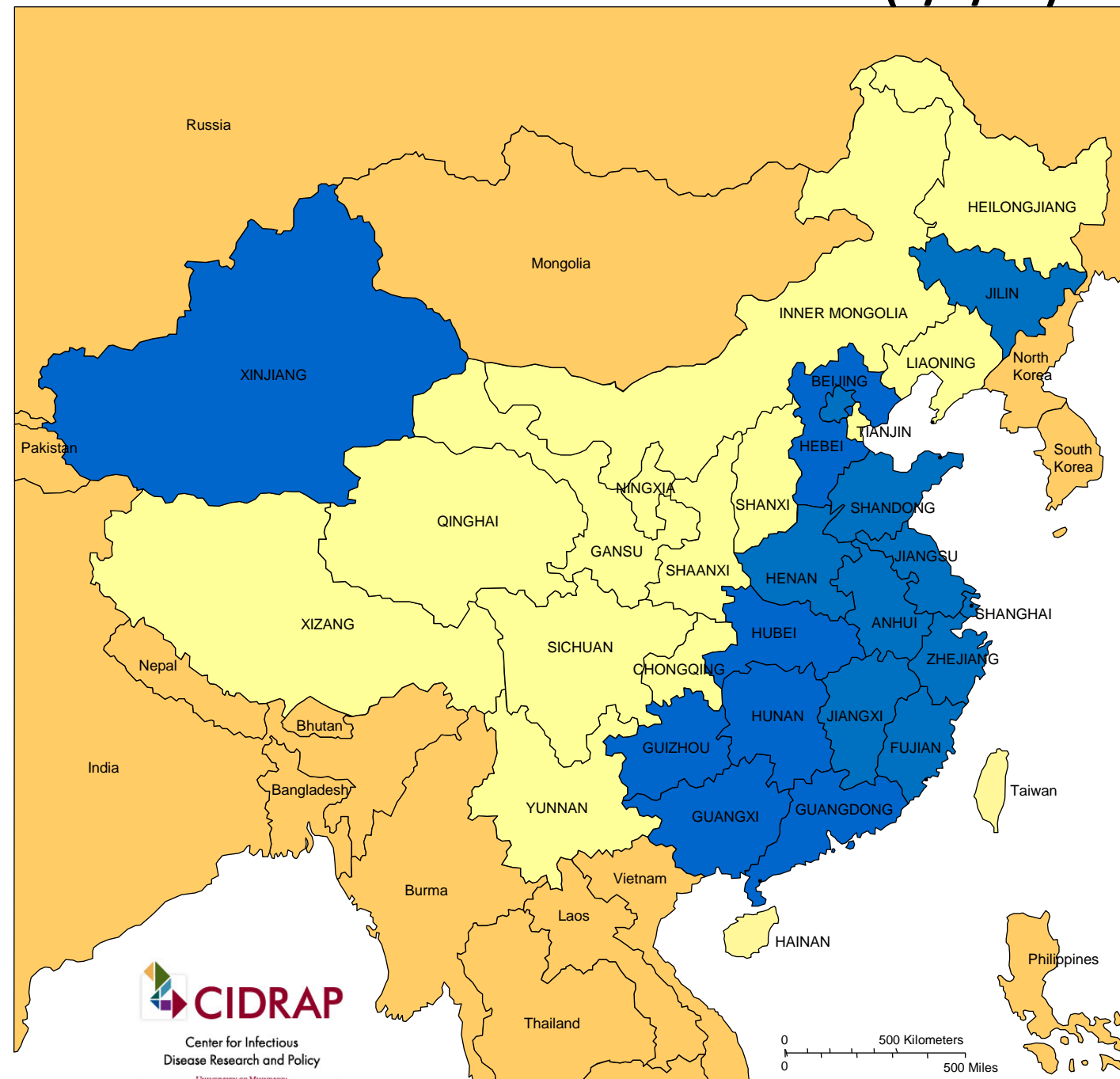
Jilin	2
-------	---

Shandong	4
----------	---

Shanghai	44
----------	----

Xinjiang	9
----------	---

Zhejiang	160
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Infection of Poultry with H7N9 Influenza Virus

- Study conducted to evaluate the possible route of transmission in poultry
 - Minnesota CEIRS group worked with SEPRL/USDA
- Study Design
 - Chickens, quail and pigeons infected with A/Anhui/1/2013 H7N9 $10^2 - 10^6$ EID₅₀ given intranasally; evaluated on Day 2 and 4
 - Specimens collected via OP or CS and evaluated via real time RT PCR using H7 specific primers
 - Contact transmission studies also performed

CT Values from Infected Poultry

Day 4 Post Infection

Inoculation Dose	Group	# birds infected	OP values	CL values
10^2	Quail	2/5	28	37
10^4	Quail	5/5	21	36
10^6	Quail	11/11	20	34
10^2	Pigeons	0/5	neg	neg
10^4	Pigeons	0/5	neg	neg
10^6	Pigeons	1/11	31	neg
10^6	Chicken	10/11	24	34

- CT value ≤ 29 is strongly positive for H7 HA
- CT value 30-37 moderate levels of H7 HA
- CT value 38-40 low levels of H7 HA



Canadian has first H7N9 case in North America

Filed Under: [Avian Influenza \(Bird Flu\)](#); [H7N9 Avian Influenza](#)

[Robert Roos](#) | [News Editor](#) | [CIDRAP News](#) | [Jan 26, 2015](#)

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Canadian officials announced today that a British Columbia resident who recently returned from China is recovering from an H7N9 avian flu infection, marking the first known case in North America.

In a statement, the Public Health Agency of Canada (PHAC) said the risk to others is very low, because evidence suggests that the virus does not spread easily from person to person.

A public health official in British Columbia said the patient is a woman and that a man who traveled with her was also sick recently, according to a Canadian Press (CP) report today. The official, Bonnie Henry, MD, said additional testing is under way to find out if the man also was infected.

The PHAC said the infected patient, who was not identified, didn't get sick until after arriving in Canada. The person was not hospitalized and is now recovering in "self-isolation," the agency said. Her companion also was not hospitalized and is recovering, according to the CP report.



Andrew W. Sieber / Flickr cc



H5N2, H5N8 avian flu viruses surface in US

Filed Under: **Avian Influenza (Bird Flu)**

Robert Roos | News Editor | CIDRAP News | Dec 16, 2014

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US authorities today reported finding wild birds in Washington state infected with two different highly pathogenic avian influenza (HPAI) viruses, H5N2 and H5N8, raising questions about possible connections with recent H5N2 outbreaks across the border in Canada and with an Asian H5N8 strain that is now hitting European poultry farms.

In reports to the World Organization for Animal Health (OIE), the US Department of Agriculture (USDA) said H5N2 was found in a wild pintail duck, while H5N8 was found in a captive wild gyrfalcon that was fed on hunter-killed birds. Both birds were in Whatcom County, Washington, which borders the Abbotsford area of British Columbia, the site of recent H5N2 outbreaks in poultry.

Also today, Italy became the fourth European country in the past few weeks to report an H5N8 outbreak in poultry, with an outbreak on a turkey farm, and Germany reported a second poultry H5N8 outbreak at a site distant from its first H5N8 event.



Frank Leung / iStock

A wild pintail duck, one of the species in which H5N2 avian flu has been found in Washington state.

USDA confirms high-path H5N1 in Washington state

Filed Under: [Avian Influenza \(Bird Flu\)](#)

[Jim Wappes](#) | Editorial Director | CIDRAP News | Jan 21, 2015

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Editor's note: This story was updated on Jan 22 with new information from the APHIS.

Highly pathogenic avian influenza (HPAI) H5N1 has been detected for the first time in a US bird, in Washington state, according to a report filed by John Clifford, DVM, deputy administrator with the Animal and Plant Health Inspection Service (APHIS) of the US Department of Agriculture (USDA).

The report, posted yesterday by the World Organization for Animal Health (OIE), details a novel H5N1 virus found in a wild green-winged teal in Whatcom County that resulted from reassortment between a Eurasian (EA)-type H5N8 virus and North American avian influenza strains.

The virus was detected in a hunter-killed bird as part of increased avian flu surveillance in wild birds, according to the report. Whole-genome sequencing placed it in EA H5 clade 2.3.4.4.



Winston Wong / Flickr cc

Increased wild bird surveillance turned up the new virus in a hunter-killed green-winged teal.




H5N8 virus surfaces on California turkey farm

Filed Under: **Avian Influenza (Bird Flu)**


Robert Roos | News Editor | CIDRAP News | Jan 26, 2015

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The highly pathogenic H5N8 avian influenza virus has been found on a California turkey farm, marking its first incursion into US commercial poultry after several recent appearances in wild birds and at least one backyard poultry flock in western states.

The virus was found in turkeys from a ranch in Stanislaus County in California's Central Valley, the US Department of Agriculture (USDA) announced Jan 24. "This is the first finding of HPAI [highly pathogenic avian influenza] in commercial poultry during the ongoing disease incident in the Pacific Flyway," the USDA's Animal and Plant Health Inspection Service (APHIS) said.

The agency added that no human cases have been reported anywhere to date and there is no threat to public health.

Virus detected via surveillance

The turkey farm is a Foster Farms facility. In a statement, the company said it detected the virus through its ongoing avian flu surveillance, adding that it has stepped up its poultry biosecurity



Cyndy Sims Parr / Flickr cc



WHO warns about influenza co-circulation, bird outbreaks

Filed Under: **Avian Influenza (Bird Flu); Influenza, General**

Lisa Schnirring | Staff Writer | CIDRAP News | Feb 26, 2015

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The World Health Organization (WHO) today sounded an alarm about a number of signals that suggest that influenza strains, especially avian ones, are co-circulating and swapping genetic material at an unprecedented level.

In a statement today, the WHO said the world needs to be concerned about the diversity and spread of avian flu viruses in wild and domestic birds, factors that could give rise to more novel strains and threaten livelihoods, the food supply, and even human health.

The group said it is also concerned about several phenomena occurring alongside avian flu detections in birds, including genetic drift in the seasonal H3N2 virus that may have rendered this year's Northern Hemisphere flu vaccine less effective, continuing H7N9 infections in China, and a spurt of H5N1 illnesses in Egypt.

Against that backdrop, several countries in the past 3 days have reported more highly pathogenic avian influenza (HPAI) in wild birds and poultry to the World Organization for Animal Health (OIE). They include the United States, Taiwan, Hungary, Myanmar, and Vietnam, and the strains include H5N8, H5N1, H5N2, and H5N3.




John Pearce, USGS / Flickr cc



In big jump, H5N2 virus hits Minnesota turkey farm

Filed Under: **Avian Influenza (Bird Flu)**


Robert Roos | News Editor | CIDRAP News | Mar 06, 2015

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A highly pathogenic avian influenza H5N2 virus has struck a turkey farm in west-central Minnesota, marking its first appearance in the Mississippi Flyway after surfacing in the Pacific Northwest in recent months, the US Department of Agriculture (USDA) announced late yesterday.

"It is the same strain of avian influenza that has been confirmed in backyard and wild birds in Washington, Oregon, and Idaho as part of the ongoing incident in the Pacific flyway," the USDA said in a statement.

The virus hit a turkey breeder replacement flock in Minnesota's Pope County, the USDA said. State Veterinarian Bill Hartmann, DVM, MS, said nearly all of the 15,000 turkeys in one barn on the farm died, the Associated Press (AP) reported last night.

State officials quarantined the farm and planned to destroy the remaining turkeys there, according to the USDA and the Minnesota Board of Animal Health (MBAH). The risk to humans is considered low, since no human H5N2 cases have ever been reported, officials said.



CAFNR / Flickr cc



Avian flu in South Korea, Taiwan prompts massive culling

Filed Under: [Avian Influenza \(Bird Flu\)](#)

[Robert Roos](#) | [News Editor](#) | [CIDRAP News](#) | [Mar 05, 2015](#)

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South Korea and Taiwan have destroyed more than 2.7 million poultry in recent weeks and months in efforts to halt highly pathogenic avian influenza (HPAI) outbreaks of the H5N8 and H5N2 varieties, according to reports posted yesterday by the World Organization for Animal Health (OIE).

In addition, South Vietnam has reported another H5N1 avian flu outbreak, and low-pathogenicity avian flu (LPAI) H7N7 recently struck a turkey farm in Germany, according to media and OIE reports.

The latest outbreaks prolong a string of avian flu episodes that have surfaced this winter in Asia, Europe, North America, and Africa. Last week the World Health Organization said the diversity and geographic extent of recent avian flu outbreaks are greater than at any time since the debut of modern surveillance methods.

South Korea cites 65 H5N8 outbreaks

A South Korean report posted by the OIE yesterday describes 65 H5N8 outbreaks dating all the way from late last September to late January and involving about 2.6 million poultry. The report profiles 22 stand-alone outbreaks and "outbreak clusters" including from 2 to 13 individual incidents.



Rachid H / Flickr cc



H5N2 strikes Missouri turkey farm

Filed Under: **Avian Influenza (Bird Flu)**

Robert Roos | News Editor | CIDRAP News | Mar 09, 2015

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Editor's note: This story was revised on Mar 10, 2015, to clarify information about the control and surveillance zones around the Minnesota farm affected by H5N2.

H5N2 avian influenza—which surfaced in the US Pacific Northwest in December and in Minnesota last week—has now struck at least one turkey farm in Missouri, according to reports yesterday.

The Missouri Department of Agriculture (MDA) reported that avian flu hit a turkey farm in Asbury, a town near the southwestern corner of the state, and that preliminary tests indicated avian flu at a facility at Fortuna, in central Missouri's Moniteau County.

A state official told the Associated Press (AP) that the virus on the Asbury farm was the same highly pathogenic H5N2 strain that has been confirmed in Washington, Oregon, Idaho, and Minnesota, said an AP story yesterday.

USDA sending team to assist

The MDA said in a statement that it was following





aetb / iStock

Missouri's second H5N2 outbreak in turkeys confirmed

Filed Under: **Avian Influenza (Bird Flu)**


Robert Roos | News Editor | CIDRAP News | Mar 10, 2015

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A second outbreak of highly pathogenic H5N2 avian influenza in turkeys has been confirmed in Missouri, on a farm halfway across the state from the first outbreak.

The second incident involves a farm housing 21,000 turkeys in the Moniteau County town of Fortuna in the central part of the state, the Missouri Department of Agriculture (MDA) said in a statement late yesterday. A day earlier, the agency had said preliminary test results indicated an outbreak there.



russwitherington1 / iStock

In related news, federal officials said the H5N2 strain found on a Minnesota turkey farm last week matches an isolate from a wild duck in Washington state, and a Wisconsin center will be testing wild birds in the Midwest for the virus.

Missouri outbreaks

The first outbreak was in Asbury, in Jasper County near the state's southwestern corner, and involved a flock of 30,100 turkeys, the agency said. That outbreak was announced Mar 8.

- Global infectious disease risk and preparedness
- Ebola virus disease
- Middle East respiratory syndrome coronavirus infection (MERS-CoV)
- Avian influenza
- Influenza vaccine effectiveness
- Chikungunya
- Other infectious disease issues



CDC's flu warning raises questions about vaccine match

Filed Under: [Influenza Vaccines](#); [Influenza, General](#)

[Robert Roos](#) | [News Editor](#) | [CIDRAP News](#) | [Dec 05, 2014](#)

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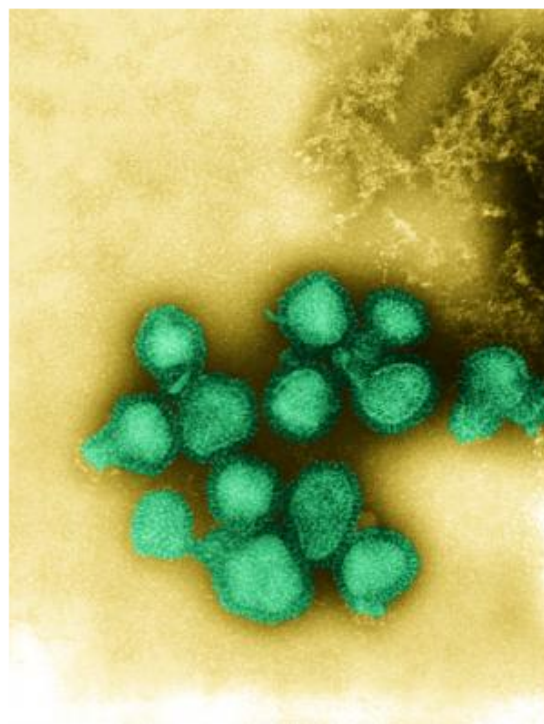
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The Centers for Disease Control and Prevention (CDC) warned yesterday that the profile of influenza viruses currently circulating, with A/H3N2 predominant, suggests a risk for a rough ride this winter, especially since about half of the H3N2 viruses don't match up with the corresponding strain in this year's vaccine.

CDC Director Tom Frieden, MD, MPH, observed that seasons dominated by H3N2 viruses are generally worse than other seasons, and warned that the mismatch between the vaccine and circulating strains may portend lower vaccine effectiveness (VE) than usual. Consequently, he emphasized that antiviral medications are an important second line of defense, especially for patients at risk for flu complications.

At a press conference, Frieden said the vaccine may still yield some protection against H3N2, despite the mismatch. At the same time, he cautioned that it's still early in the season and flu is highly unpredictable, so anything could happen.

In response to the CDC advisory, some flu experts raised questions about the wisdom of focusing public




CDC / Dr. Fred Murphy


H3N2 influenza viruses, highly magnified.

Early-season estimate finds flu vaccine only 23% effective

Filed Under: **Influenza Vaccines**


Robert Roos | News Editor | CIDRAP News | Jan 15, 2015

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A preliminary analysis indicates that this year's flu vaccine, which is not well matched to the predominant circulating flu strain, is only 23% effective in protecting people, the Centers for Disease Control and Prevention (CDC) announced today.

The agency said the finding, which is well below the typical overall flu vaccine effectiveness (VE) of around 60%, illustrates the importance of antiviral treatment for those at risk for flu complications and also points up the need for better flu vaccines. The findings were published in the Jan 16 issue of *Morbidity and Mortality Weekly Report*.

Two experts who were involved in the study said that although the relationship between vaccine match and effectiveness in general is not very clear, in this case the low VE probably is related to the mismatch, given that about two-thirds of circulating H3N2 viruses are "drifted" from the H3N2 component of the vaccine.



CDC / James Gathany

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UK, Canada add to bad news on this year's flu vaccine

Filed Under: **Influenza Vaccines**

Robert Roos | News Editor | CIDRAP News | Feb 05, 2015

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Researchers brought more bad news today on the performance of this winter's flu vaccine—which does not match well with the dominant circulating strain—saying it has shown no significant effectiveness in preventing flu in the United Kingdom or in preventing flu-related hospitalizations in Canada.

The British team estimated the vaccine's effectiveness in preventing medically attended flu at just 3.4%, while the Canadian group put its effectiveness for preventing flu-linked hospitalizations in the negative range: -16.8%. The findings were published in today's *Eurosurveillance*.

Those mid-season estimates are similar to another Canadian estimate released last week but lower than a US estimate issued in mid-January. The estimate a week ago from the Canadian Sentinel Physician Surveillance Network put the vaccine effectiveness (VE) at -8%. And on Jan 15 the US Centers for Disease Control and Prevention reported a mid-season VE estimate of 23%. Both estimates pertained to flu in outpatients, not hospital patients.

A more typical VE estimate for seasonal flu vaccines is in the 50% to 60% range, at least in healthy, working-age adults, with lower numbers in the elderly. Health officials have attributed the vaccine's poor performance this winter to a mismatch with circulating influenza A/H3N2 viruses, which are overwhelmingly dominant this season. About two-thirds of H3N2 viruses from US patients have differed from the H3N2 strain in the vaccine.



SnowWhiteimages / iStock

Health officials say this year's flu vaccine matches poorly with most circulating H3N2 viruses.



Flu Scan for Mar 03, 2015

Flu vaccine performance; HCWs, flu, and fever; H7N9 in China; H5N1 in Nigeria

Filed Under: [Avian Influenza \(Bird Flu\)](#); [H7N9 Avian Influenza](#); [Influenza Vaccines](#); [Influenza, General](#)

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New estimate puts current flu vaccine's effectiveness a bit lower

The latest estimate of the overall effectiveness of this year's seasonal influenza vaccine puts it at just 19% (95% confidence interval [CI], 7%-29%), slightly lower than the 23% reported in mid-January, the Centers for Disease Control and Prevention (CDC) reported yesterday.

The CDC said the updated estimate of vaccine effectiveness (VE) against H3N2 viruses, the heavily dominant subtype this winter, is 18% (95% CI, 6%-29%). This is similar to the earlier estimate (22%) and confirms reduced protection against H3N2 viruses this season, the agency added.

About two thirds of circulating H3N2 viruses have not been well matched to the H3N2 in the vaccine this winter. The CDC said the estimated VE is about a third of what is expected when the vaccine is well matched to the dominant circulating viruses, though a number of other factors also influence VE.

The estimate of VE against influenza B this winter is 45% (95% CI, 14%-65%), which is similar to the VE seen when vaccine and circulating viruses are well matched, the CDC said. The earlier VE estimate did not include a separate estimate for type B because of low numbers of cases.

In practical terms, the overall VE of 19% means "the flu vaccine reduced a person's risk of having to seek medical care at a doctor's office for flu illness by 19%," the CDC observed.

Mar 2 [CDC statement on flu VE](#)

Jan 15 [CIDRAP News story on earlier CDC estimate](#)



ACIP drops preference for nasal-spray flu vaccine in kids

Filed Under: **Influenza Vaccines**

Robert Roos | News Editor | CIDRAP News | Feb 26, 2015

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Faced with new data that conflict with older findings, the US Advisory Committee on Immunization Practices (ACIP) today voted to drop its advice that the nasal-spray influenza vaccine should be preferred over injectable vaccines for children from 2 through 8 years old.

The committee's action was prompted by findings that the intranasal vaccine was not effective against influenza A/H1N1 in children in 2013-14 and that it—like other flu vaccines—has not worked well against A/H3N2 in children this season, the Centers for Disease Control and Prevention (CDC) said in a press release.

The ACIP, which shapes the CDC's vaccine guidance, "recommends that children 6 months and older get annual influenza vaccine with no preference stated for either the nasal spray vaccine or the flu shot," the CDC said. The committee vote was 14-0, with one abstention.

The committee left its annual flu vaccine recommendations otherwise unchanged, advising that nearly everyone more than 6 months old get an annual flu shot.



CDC / James Gathany

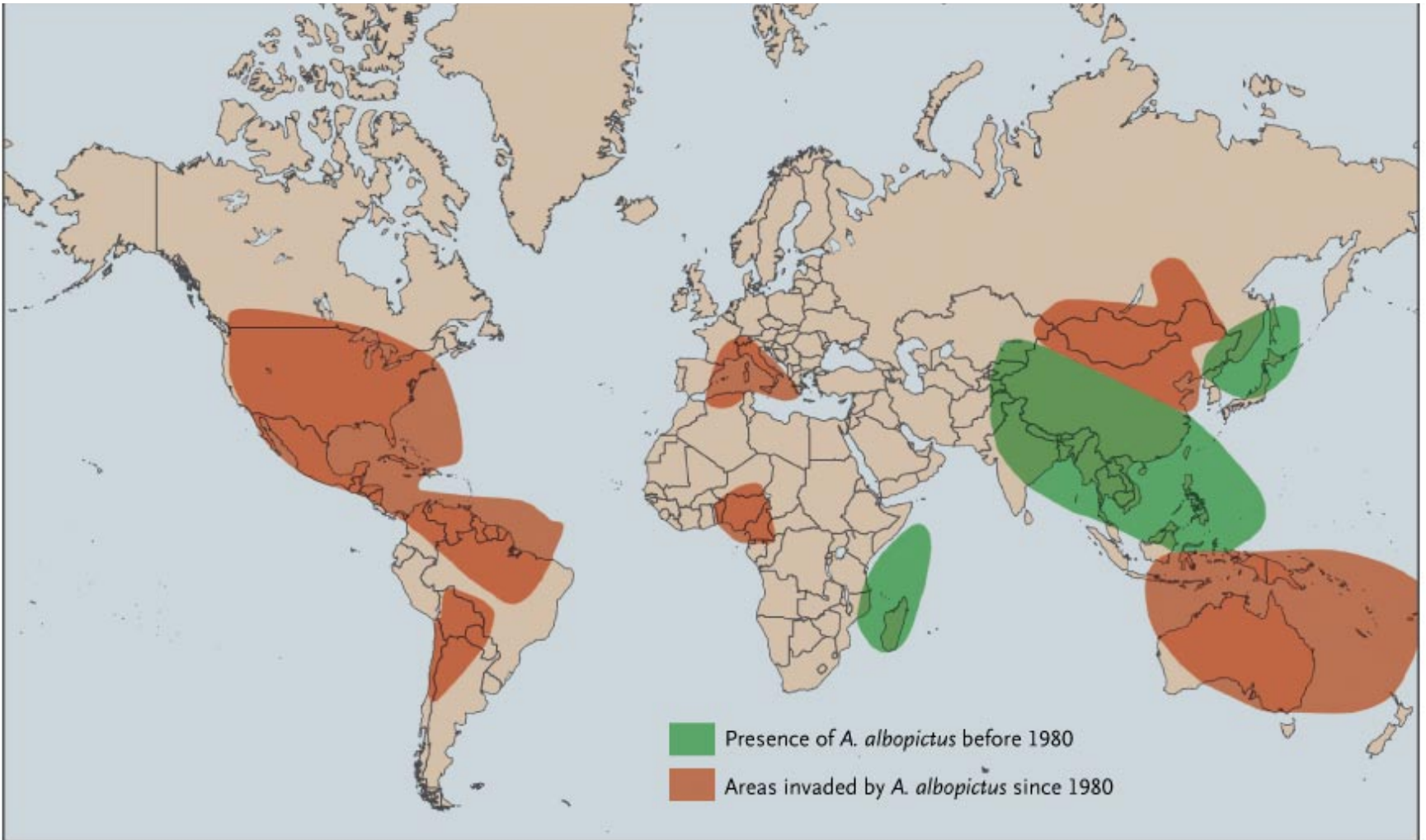
- Global infectious disease risk and preparedness
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- Avian influenza
- Influenza vaccine effectiveness
- Chikungunya
- Other infectious disease issues



Aedes albopictus Female



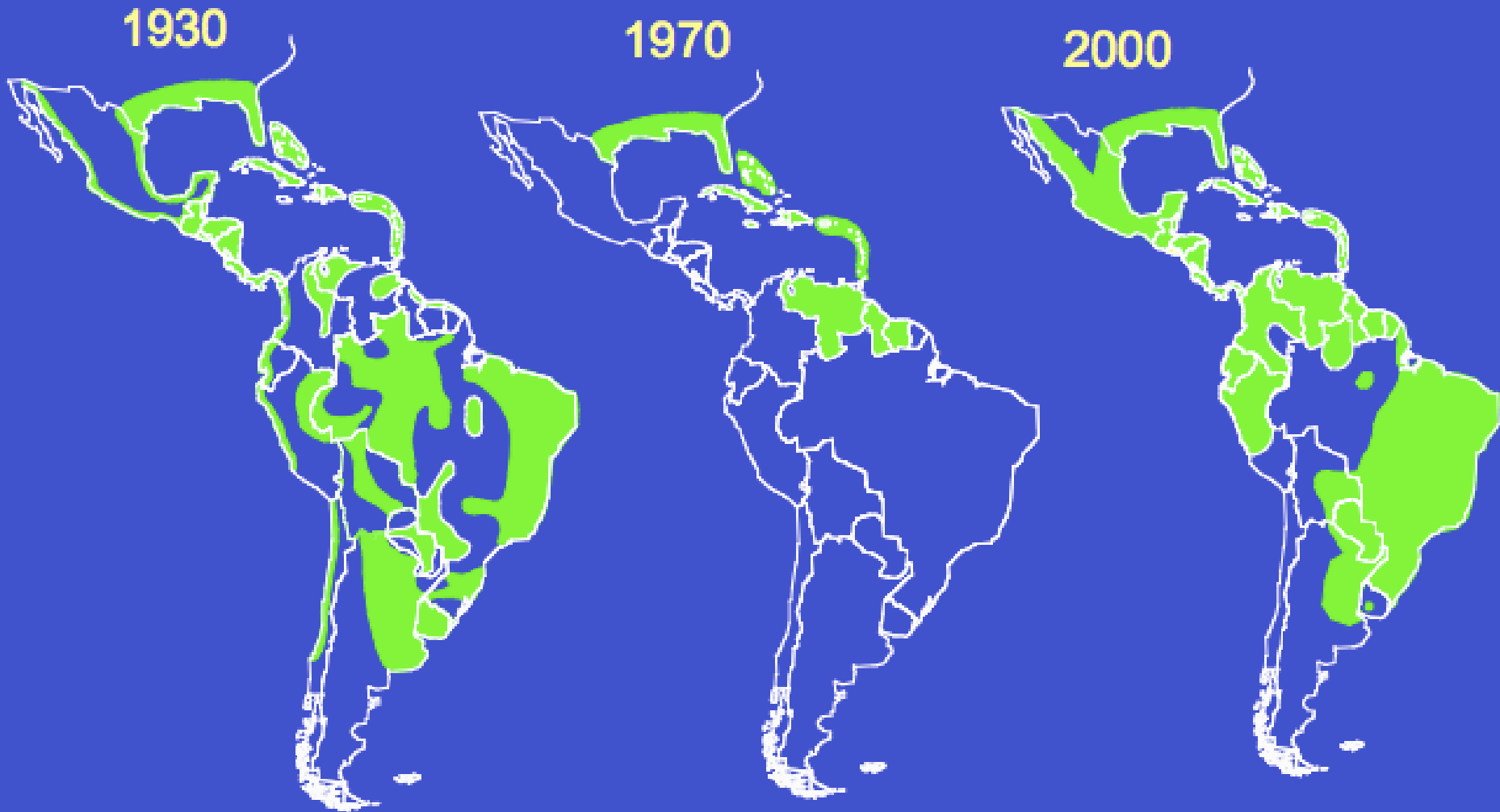
World Distribution of the *Aedes albopictus* Mosquito



Aedes aegypti



Aedes aegypti Distribution in the Americas





Published Date: 2013-12-09 12:31:29

Subject: PRO/EDR> Chikungunya (52): Caribbean (St Martin) alert

Archive Number: 20131209.2099940

CHIKUNGUNYA (52): CARIBBEAN (SAINT MARTIN) ALERT

A ProMED-mail post

<http://www.promedmail.org>

ProMED-mail is a program of the
International Society for Infectious Diseases

<http://www.isid.org>

Date: Fri 6 Dec 2013

Source: The Daily Herald [edited]

http://www.thedailyherald.com/index.php?option=com_content&view=article&id=44572

In St Martin, 2 cases of chikungunya [virus infection], a dengue-like sickness, have been confirmed following testing at the specialist laboratory in Marseille that returned positive results to Agence Regional de Sante (ARS [Regional Health Agency]) on 5 Dec 2013.

The disclosure was made by ARS Director-General Patrice Richard on Friday [6 Dec 2013] at a press conference in the Prefecture attended by Prefet Philippe Chopin, President of the Collectivity Aline Hanson, Dutch-side [St Maarten] Minister of Public Health Cornelius de Weever and specialist epidemiologists.

Richard said family doctors, for about 2 weeks, have been reporting cases of people showing suspected signs of chikungunya, and not dengue [virus infections]. There is no current evidence that chikungunya is on the Dutch side [of the island]. The virus can be imported by travelling from a risk country.

The 2 confirmed cases originated in French Quarter. In addition, there are currently 4 "probable" cases and 30 "suspected" cases, 15 of which are in the Oyster Pond area. In technical terms, "suspected" means just the signs are manifested while "probable" is a diagnostic test that calculates the likelihood that chikungunya [virus] has been contracted, according to epidemiologists.

ARS is awaiting more results of other cases from the Marseille laboratory.

"Chikungunya is in the Pacific islands, in Asia, in India, but never until now in the Caribbean islands," noted epidemiologist Marion Petit-Sinturel. "It's the 1st time we have located transmission here in St Martin."

ARS Director Pascal Godefroy said the situation is likely to change quickly as results come in. "This could be the beginning of an epidemic since we are already in a dengue epidemic," he said.

Minister de Weever acknowledged that "mosquitoes don't stop at the border," and assured the full cooperation of Dutch-side health authorities.

Number of Reported Cases of Chikungunya Fever in the Americas, by Country or Territory
2013-2015 (to week noted)
Cumulative cases
Epidemiological Week / EW 9 (Updated as of 6 March 2015)

Country/Territory	Week ^a	Autochthonous transmission cases ^b		Imported cases	Incidence Rate ^c	Deaths	Population ^d X 1000
		Suspected	Confirmed				
North America							
Bermuda	Week 3		0	10	0.0	0	69
Canada	Week 4		0	320	0.0	0	35,182
Mexico	Week 9		355	20	0.3	0	118,129
United States of America ^e	Week 8		11	2,524	0.0	0	320,051
Subtotal		0	366	2,874	0.1	0	473,431
Central American Isthmus							
Belize	Week 44		3		0.9	0	332
Costa Rica	Week 6		233	89	4.8	0	4,872
El Salvador	Week 8	143,346	157		2,263.5	0	6,340
Guatemala ^f	Week 53	27,343	198		178.1	0	15,468
Honduras	Week 6	6,894	9	5	85.2	0	8,098
Nicaragua ^g	Week 2	2,727	1,918	40	76.4	0	6,080
Panama	Week 48		22	32	0.6	0	3,864
Subtotal		180,310	2,540	166	405.8	0	45,054
Latin Caribbean							
Cuba	Week 42			20	0.0	0	11,266
Dominican Republic	Week 53	539,099	84		5,182.5	6	10,404
French Guiana	Week 8	12,957	6,191		7,690.0	1	249
Guadaloupe	Week 50	81,200	430		17,517.2	67	466
Haiti	Week 28	64,695	14		627.2	0	10,317
Martinique	Week 50	72,200	1,515		18,246.3	83	404
Puerto Rico ^h	Week 7	26,811	4,323	31	844.2	15	3,688
Saint Barthelemy	Week 6	1,690	142		20,584.3	0	9
Saint Martin (French part)	Week 6	5,280	793		17,016.0	3	36
Subtotal		803,932	13,492	51	2,218.9	175	36,839
Andean Area							
Bolivia	Week 9		74	5	0.7	0	10,671
Colombia	Week 7	183,718	1,317	26	382.9	3	48,321
Ecuador	Week 9		213	26		0	15,738
Peru	Week 6		0	34	0.0	0	30,376
Venezuela	Week 51	34,642	2,303	70	121.5	0	30,405
Subtotal		218,360	3,907	161	164.0	3	135,511

Number of Reported Cases of Chikungunya Fever in the Americas, by Country or Territory
2013-2015 (to week noted)
Cumulative cases
Epidemiological Week / EW 9 (Updated as of 6 March 2015)

Country/Territory	Week ^a	Autochthonous transmission cases ^b		Imported cases	Incidence Rate ^c	Deaths	Population ^d X 1000
		Suspected	Confirmed				
Southern Cone							
Argentina	Week 7			53	0.0	0	41,446
Brazil	Week 6	3,867	149	100	2.0	0	200,362
Chile	Week 53		0	19	0.0	0	17,620
Paraguay	Week 9	129	130	7	3.8	0	6,802
Subtotal		3,996	279	179	6	0	266,230
Non-Latin Caribbean							
Anguilla	Week 7	67	52	2	743.8	0	16
Antigua and Barbuda	Week 7	1,428	18		1,606.7	0	90
Aruba	Week 5	928	427	12	1,243.1	0	109
Bahamas	Week 7		99	6	26.3	0	377
Barbados	Week 5	1,742	122	8	645.0	2	289
Cayman Islands	Week 6	223	44	3	494.4	0	54
Curacao	Week 44	1,838	835	7	1,818.4	0	147
Dominica	Week 5	3,598	173		5,165.8	0	73
Grenada	Week 46	3,070	26		2,814.5	0	110
Guyana	Week 2	5,310	105		676.9	0	800
Jamaica	Week 7	1,669	87	2	63.1	0	2,784
Montserrat	Week 4	117	14		2,620.0	0	5
Saint Kitts and Nevis	Week 53	627	28		1,284.3	0	51
Saint Lucia	Week 52	645	238		541.7	0	163
Saint Vincent and the Grenadines	Week 2	1,245	173		1,376.7	0	103
Sint Maarten (Dutch part) ^e	Week 52		470		1,175.0	0	40
Suriname ^f	Week 43		1,210	14	224.5	1	539
Trinidad and Tobago	Week 3		303	3	22.6	0	1,341
Turks and Caicos Islands	Week 44		19	7	39.6	0	48
Virgin Islands (UK)	Week 47	347	47		1,231.3	0	32
Virgin Islands (US)	Week 4	1,625	279	8	1,813.3	2	105
Subtotal		24,479	4,769	72	402.0	5	7,276
TOTAL		1,231,077	25,353	3,503	130.3	183	964,341

Chikungunya, countries or areas at risk



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Health Organization
Map Production: Health Statistics and
Information Systems (HSI)
World Health Organization



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**Countries/territories with
autochthonous transmission or imported cases
of Chikungunya in the Americas, EW 4, 2015**



- Global infectious disease risk and preparedness
- Ebola virus disease
- Middle East respiratory syndrome coronavirus infection (MERS-CoV)
- Avian influenza
- Influenza vaccine effectiveness
- Chikungunya
- Other infectious disease issues



Global Alert and Response (GAR)

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Measles – WHO European Region

Disease outbreak news
6 March 2015

Between 1 January 2014 and 1 March 2015, WHO received notification of over 23 000 cases of measles in the WHO European Region. The most affected country is Kyrgyzstan with over 7 000 cases reported in just the first seven weeks of 2015. Significant numbers of measles cases have also been reported in Bosnia and Herzegovina, Croatia, Georgia, Germany, Italy, Kazakhstan, Russian Federation and Serbia.

Measles virus D8 has been the most commonly identified circulating genotype.

WHO advice


Based on the current situation and available information, WHO encourages Member States to scale up vaccination against measles across age groups at risk. This will help putting an end to the several outbreaks currently hitting countries of the European Region and preventing similar outbreaks in the future.


At the same time, all countries need to maintain a very high routine measles vaccination coverage so that similar outbreaks will not happen again in the Region, and measles can be eliminated once and for all.

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[WHO Regional Office for Europe press release on measles](#) 
25 February 2015


[European Vaccine Action Plan](#) 


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Publications

[Measles and rubella elimination 2015: Package for accelerated action 2013–2015](#) 


[Guidelines for measles and rubella outbreak investigation and response in the WHO European Region](#) 



CDC sounds alarm about early measles spike

Filed Under: **Measles**


Lisa Schnirring | Staff Writer | CIDRAP News | Jan 29, 2015

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The 84 measles cases from 14 states reported to federal officials in January alone already exceed the total reported from some whole years, prompting a warning from the US Centers for Disease Control and Prevention (CDC) that Americans should be vaccinated and that clinicians be on guard for detecting and preventing the disease.

At a media briefing today, Anne Schuchat, MD, assistant surgeon general and director of the CDC's National Center for Immunization and Respiratory Diseases, said most of the cases are part of a multistate outbreak linked to a Disney theme park in California that started in late December. "This worries me," she said, airing concerns that a disease that was considered eliminated in the United States in 2000 is now at risk of becoming endemic again.

The surge in infections this month follows a banner year for the disease in 2014, during which more than 600 measles cases were reported in the United States, the most in 20 years.




CDC / Jim Goodson, MPH





Four measles outbreaks push US cases to 170

Filed Under: **Measles**


Lisa Schnirring | Staff Writer | CIDRAP News | Mar 02, 2015

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Sixteen more measles cases were reported to the US Centers for Disease Control and Prevention (CDC) last week, lifting the national total to 170 cases so far this year, about three fourths of them part of a large ongoing multistate outbreak linked to Disneyland in California.

Though 17 states and the District of Columbia have reported measles cases this year, 89% of the cases are from four outbreaks, with California and its link to the Disney outbreak having the most cases. Three other states—Illinois, Nevada, and Washington—have outbreaks under way that aren't linked to the Disney outbreak.

Disneyland outbreak total grows

Seven more infections have been linked to the Disney outbreak, lifting that total to 140, the CDC said. However, 15 of those cases were reported from late December when the outbreak first began and aren't included in the 170 total cases for this year.



Christopher Badzioch / iStock

Los Angeles Times

Superbug outbreak extends to Cedars-Sinai hospital, linked to scope



Four people have been infected with a superbug linked to a contaminated medical scope, Cedars-Sinai has discovered, and 67 others may have been exposed. (Frederic J. Brown / AFP/Getty Images)



News Scan for Mar 05, 2015

More Saudi MERS cases; College meningitis B outbreak; More contaminated scopes

Filed Under: [MERS-CoV](#); [Meningitis](#); [Antimicrobial Resistance](#)

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Two more hospitals report scope-related 'superbug' infections

A second Los Angeles hospital and one in Hartford, Conn., reported drug-resistant "superbug" infections linked to contaminated duodenoscopes, Reuters reported yesterday.

Cedars-Sinai Medical Center in Los Angeles reported four infections with carbapenem-resistant Enterobacteriaceae (CRE) and said 67 more patients were at risk. Two weeks ago the UCLA Ronald Reagan Medical Center in Los Angeles reported seven CRE infections, two of them fatal, linked to the fiber-optic instrument.

A hospital in Hartford, meanwhile, reported at least five duodenoscope-linked infections involving drug-resistant *Escherichia coli*. A *Hartford Courant* story yesterday identified the hospital as Hartford Hospital and said officials were notifying 281 additional patients of possible exposure.

Rocco Orlando III, MD, chief medical officer of Hartford HealthCare, said that the endoscopies that led to potential exposures in the past several months are of a type reserved for very ill patients and were not general endoscopies, the *Courant* reported.

The FDA, meanwhile, updated its alert on the type of duodenoscopes involved in the outbreak.

Mar 4 Reuters report

Mar 4 *Hartford Courant* story

Mar 4 FDA updated alert



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Deadly superbug-related scopes sold without FDA approval

By Elizabeth Cohen, Senior Medical Correspondent

🕒 Updated 5:20 AM ET, Thu March 5, 2015

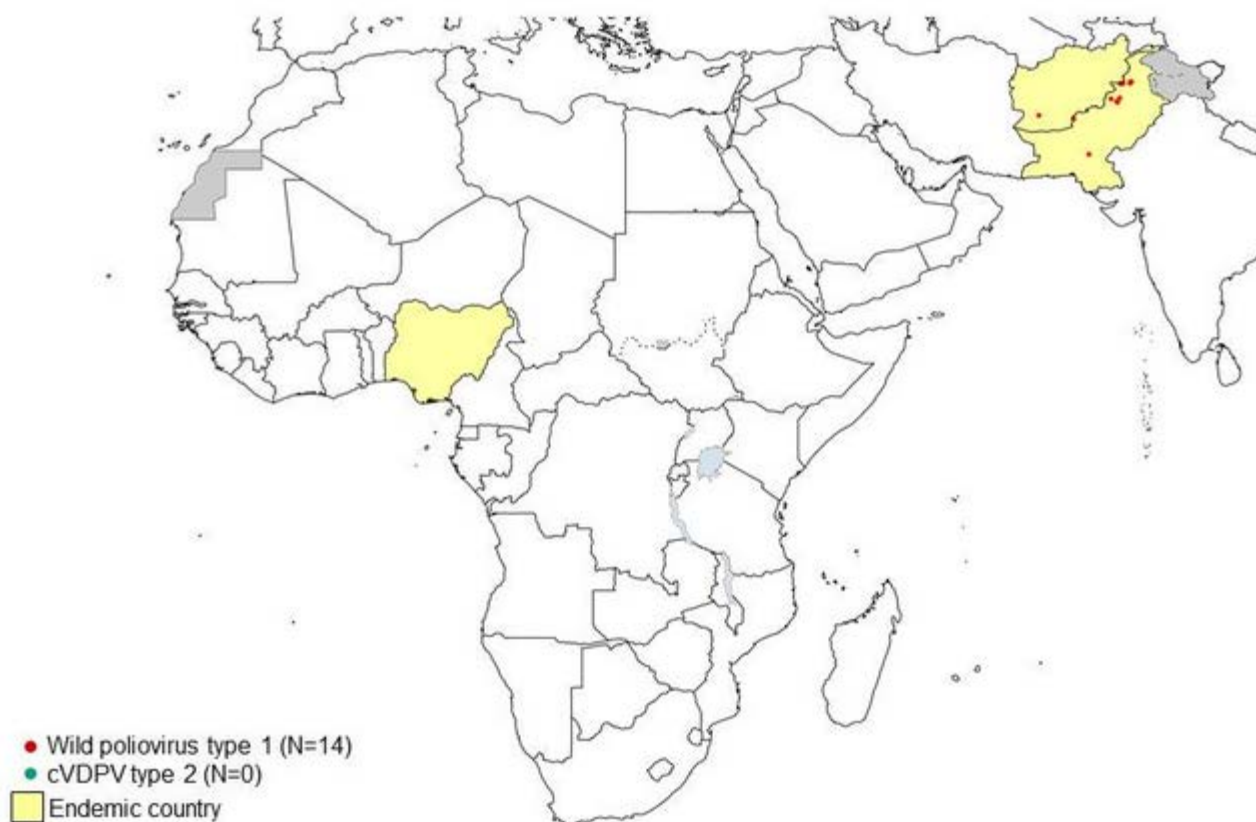


CENTERS FOR DISEASE CONTROL

Antibiotic-resistant bacteria 17 photos

Carbapenem-resistant enterobacteriaceae (CRE)

Wild Poliovirus & cVDPV¹ Cases², 2015
01 January – 03 March



¹cVDPV is associated with ≥ 2 AFP cases or non-household contacts. VDPV2 cases with ≥ 6 (≥ 10 for type1) nucleotides difference from Sabin in VP1 are reported here. ²Excludes viruses detected from environmental surveillance.

Data in WHO HQ as of 03 March 2015

**“If you don’t know where
you’re going, any road will
get you there.”**

- Lewis Carroll

“Are these the shadows of the things that Will be, or are they shadows of things that May be, only?”

Ebenezer Scrooge