2018 Ebola Virus and Emerging Infections Summit: VDH Updates

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Summary:

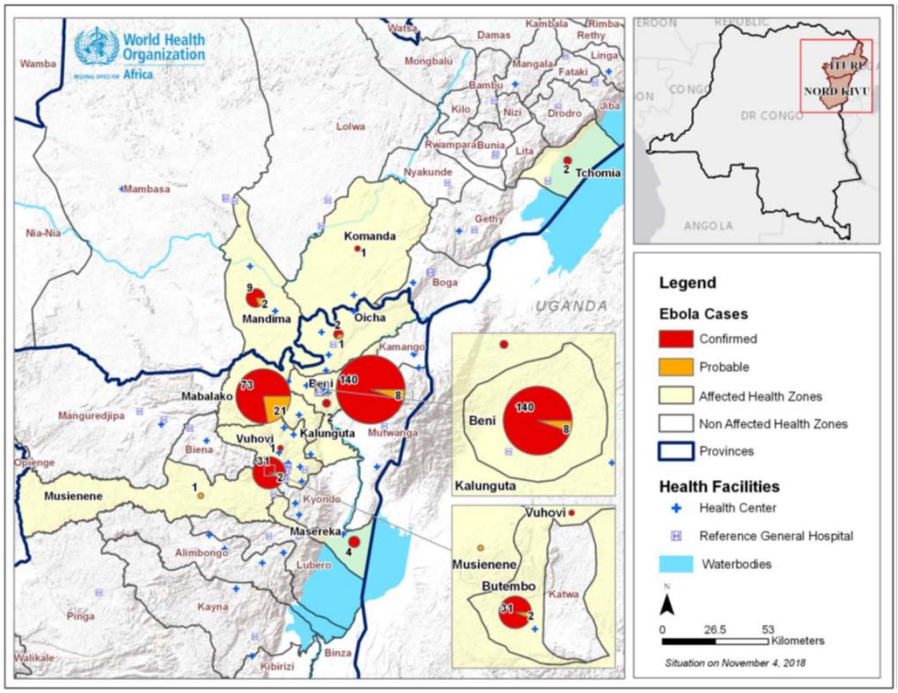
- Ebola update from DRC and what it means for us
- Public Health and Healthcare Roles
- Emerging Infections to consider

Ebola Virus Disease (EVD) Outbreak in the Democratic Republic of Congo (DRC)

Ebola outbreak declared on 8/1/18 in the North Kivu province; spread to Ituri province

As of 11/6/18:

- 308 cases reported (273 confirmed, 35 probable)
- 191 deaths (156 confirmed, 35 probable)
- Case fatality ratio = 62% (186/300)



Challenges in the DRC During EVD Outbreak Response

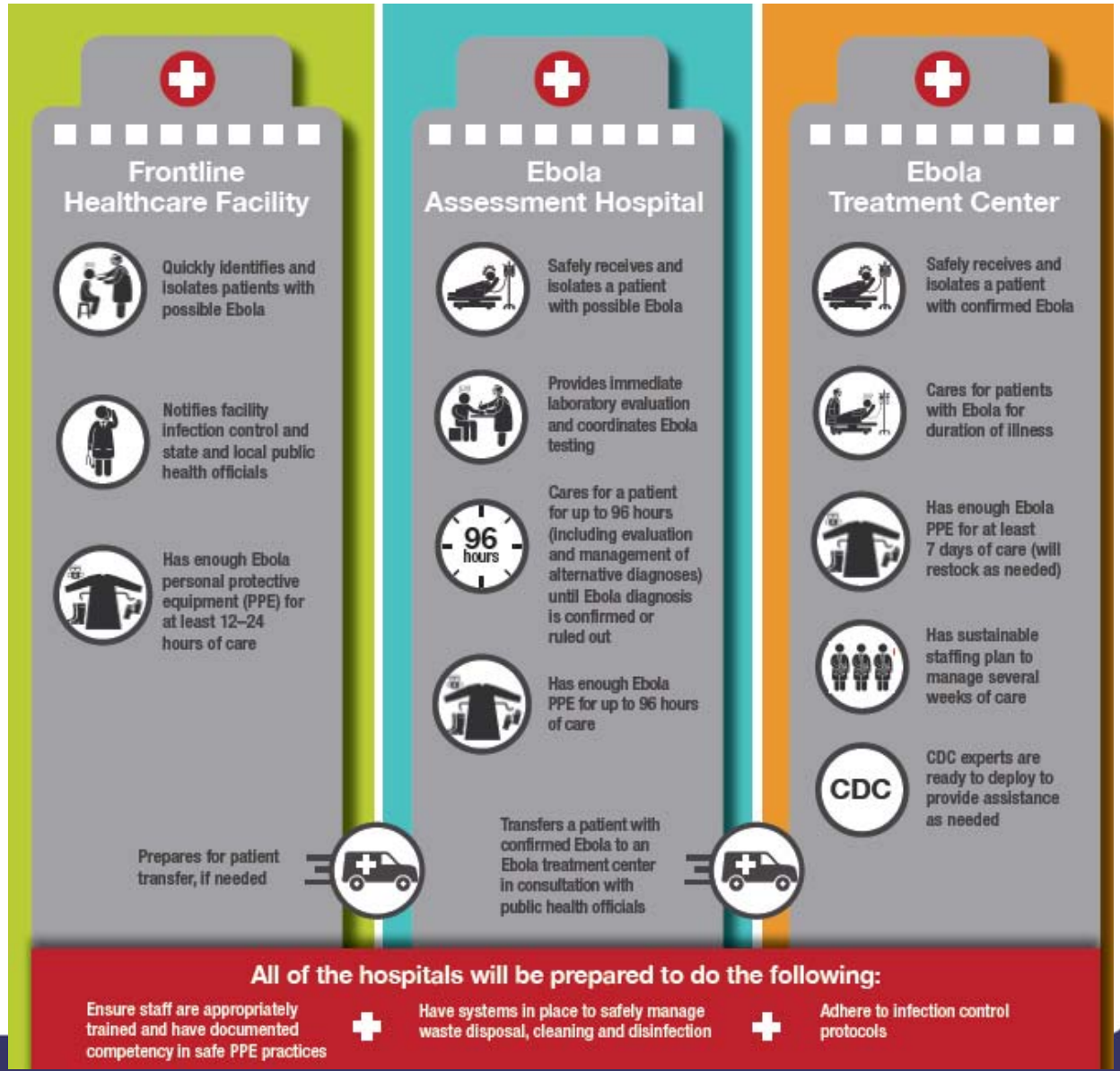
- Intense insecurity and humanitarian crisis complicating response efforts
- Risk of outbreak spreading across borders (Uganda, Rwanda, South Sudan)
- Potential risk factors for transmission (high regionally, low globally)
- DRC responding to other outbreaks (cholera, vaccine-derived polio, measles, monkeypox)

Response Efforts to Stem EVD Outbreak in DRC

A member of the vaccinating team vaccinates a health worker in Rwebisengo

- Greater than 16,000 case contacts tracked; 4,000 still being tracked
- Large proportion of newly identified cases not previously identified as contacts
- Ring vaccination efforts (168 rings; 27,000 people vaccinated)
- Uganda starting 1st wave of HCW vaccinations in bordering area (no EVD cases in Uganda reported)

Preparing U.S. Hospitals for Ebola

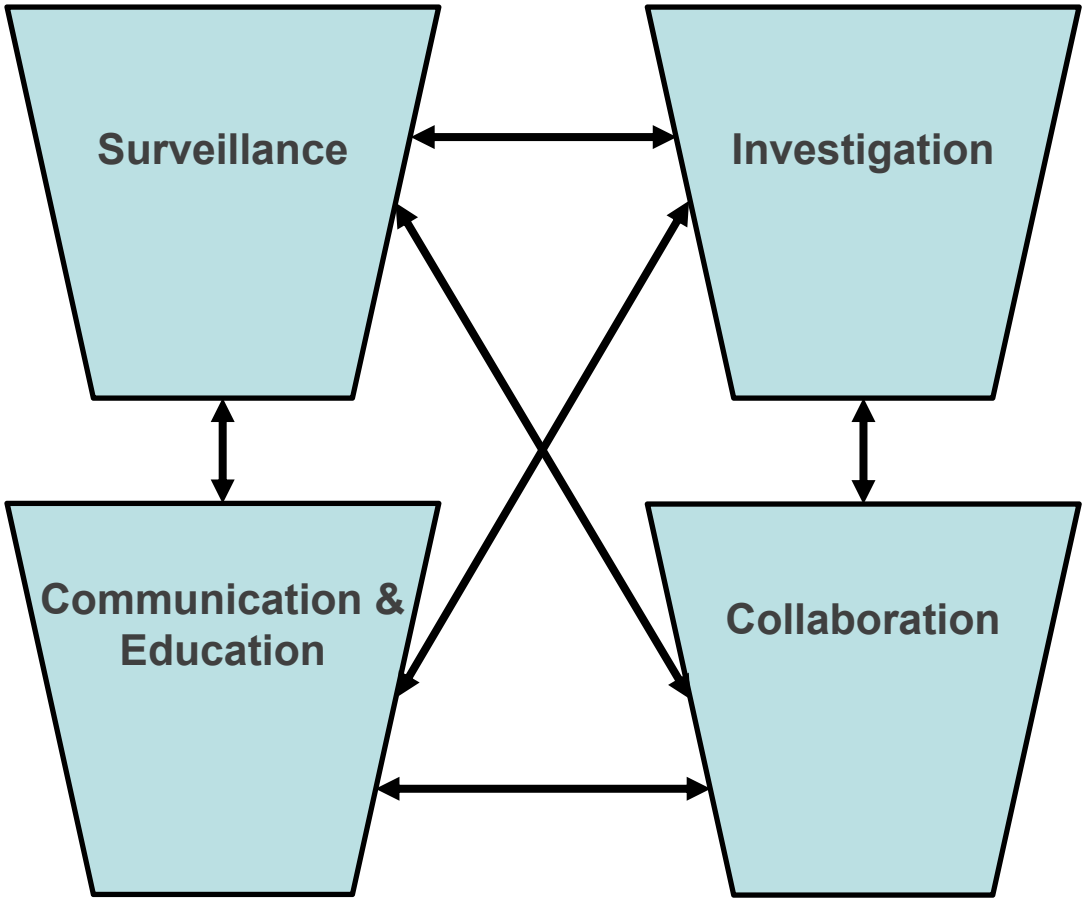


VDH VIRGINIA DEPARTMENT OF HEALTH

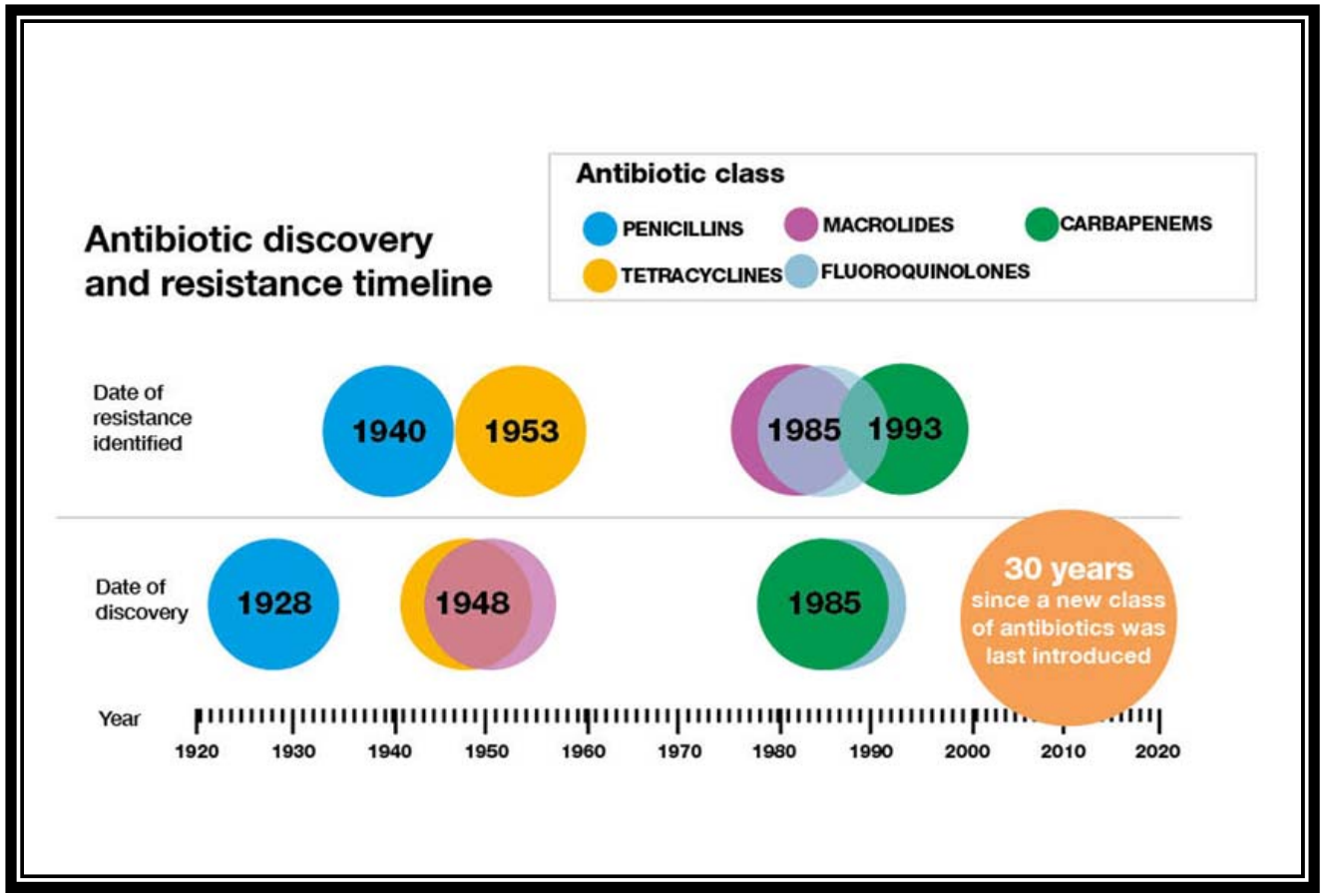
To protect the health and promote the well-being of all people in Virginia.

EMERGING PATHOGENS AND VDH RESPONSE

VDH HAI/AR Program: Strategy

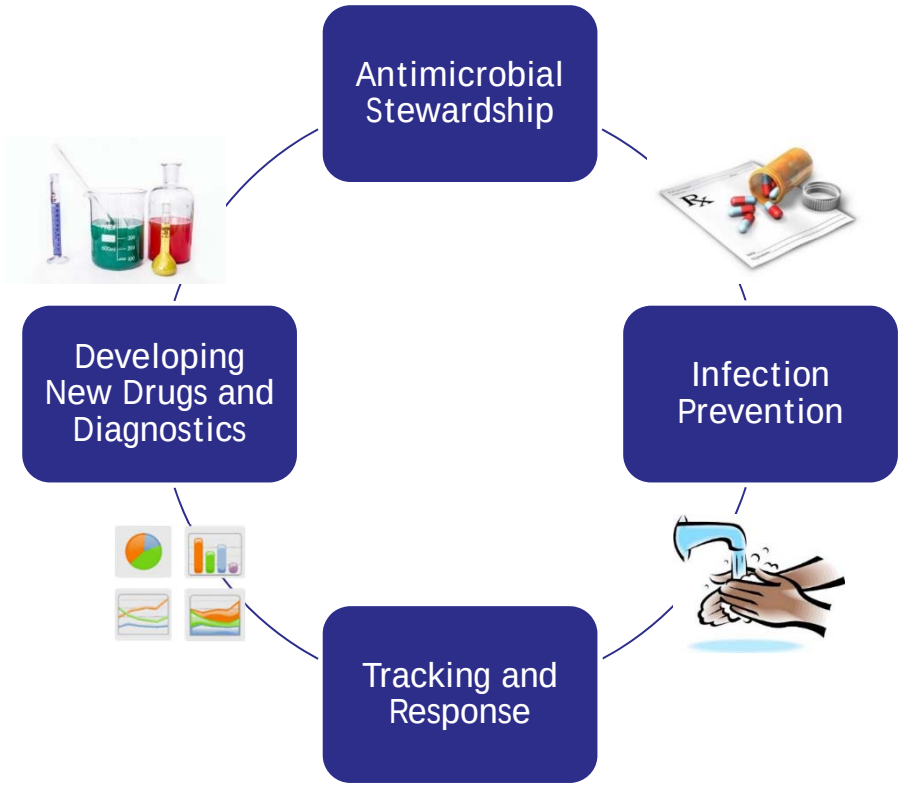


Antibiotics and Resistance



WHAT IS BEING DONE TO DECREASE ANTIBIOTIC RESISTANCE?

Decreasing Antimicrobial Resistant Infections



CDC Containment Strategy

Goal

- Slow spread of novel or rare multidrug-resistant organisms or mechanisms

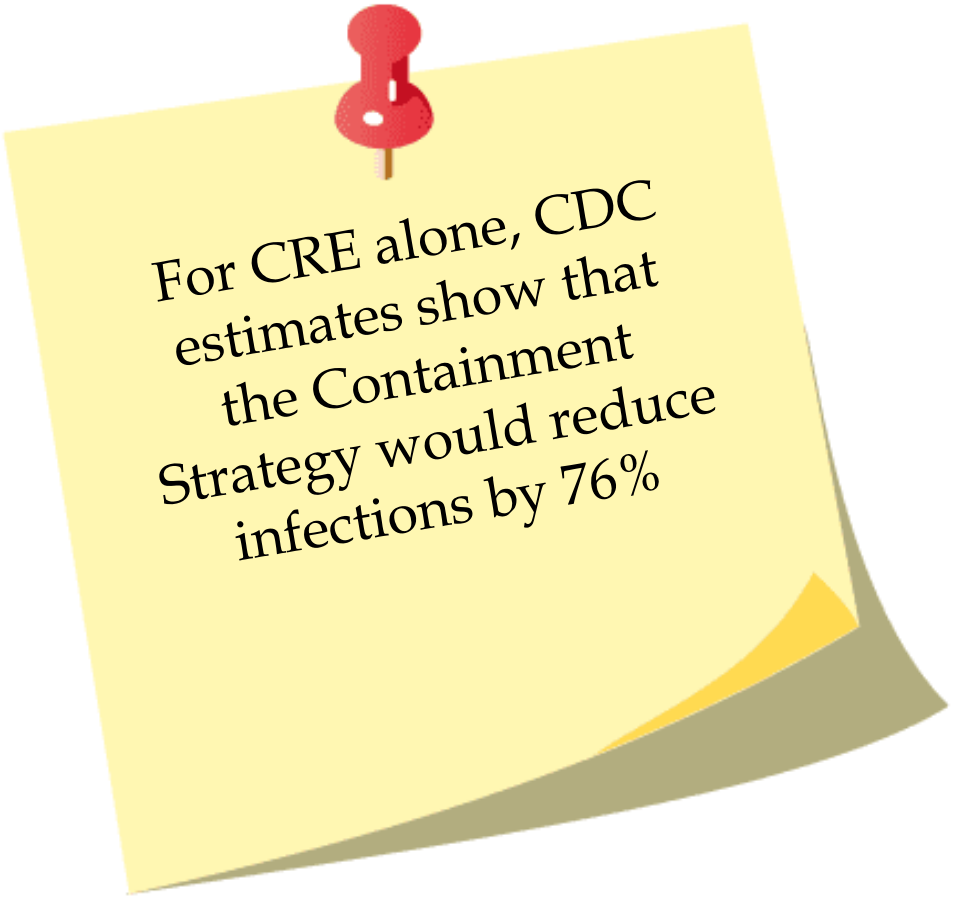
Response

- Systematic, aggressive response to SINGLE case of high concern of antimicrobial resistance

Approach

- Response activities have tiered approach based on organisms/mechanisms attributes

CDC Containment Strategy



VDH Reporting Requirements

November 14, 2018:

Virginia *Regulations for Disease Reporting and Control* updated to include the following on the Reportable Disease List:

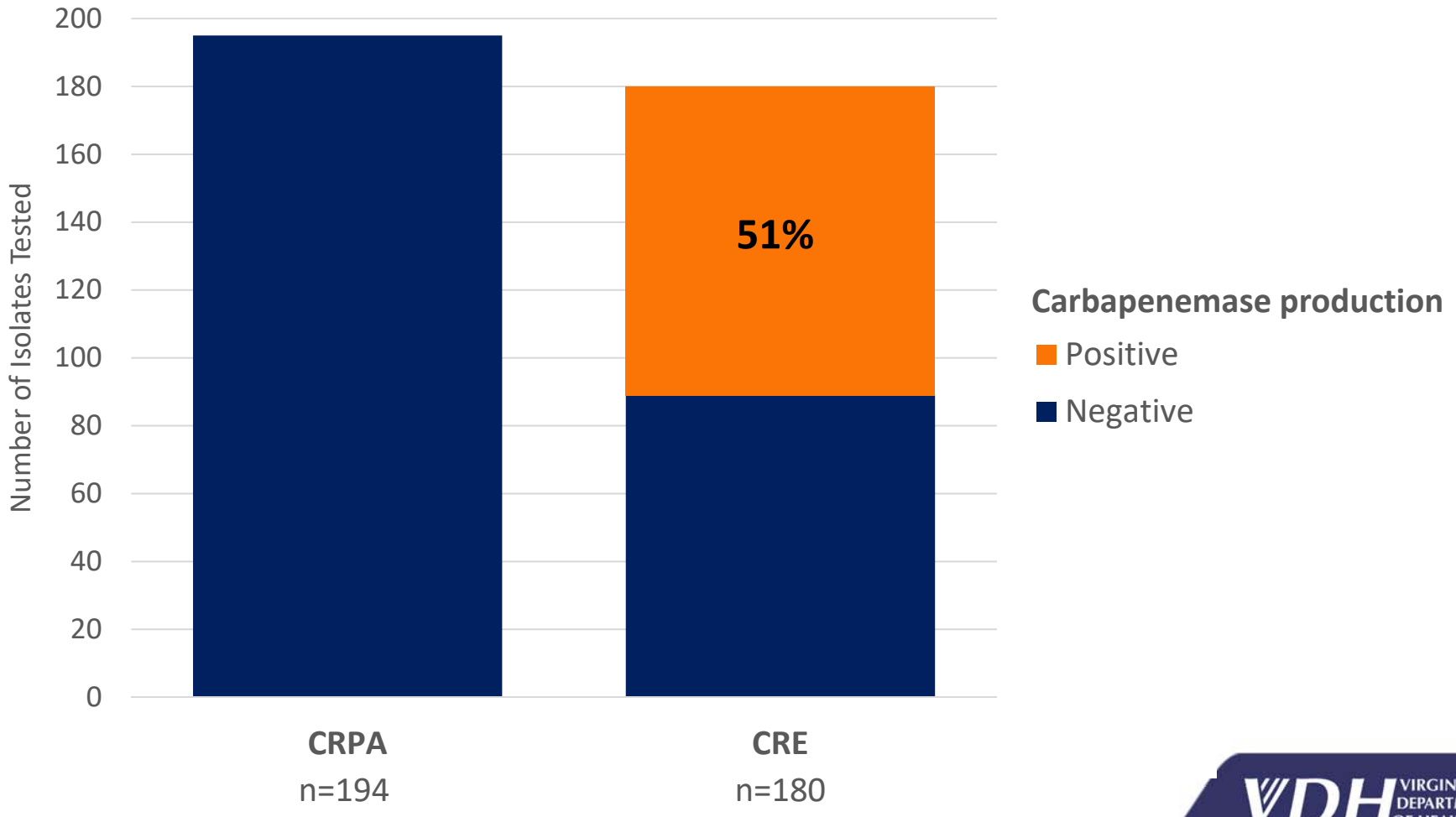
- Carbapenemase-producing organisms, infection or colonization
- *Candida auris*, infection or colonization

Importance of Carbapenemases

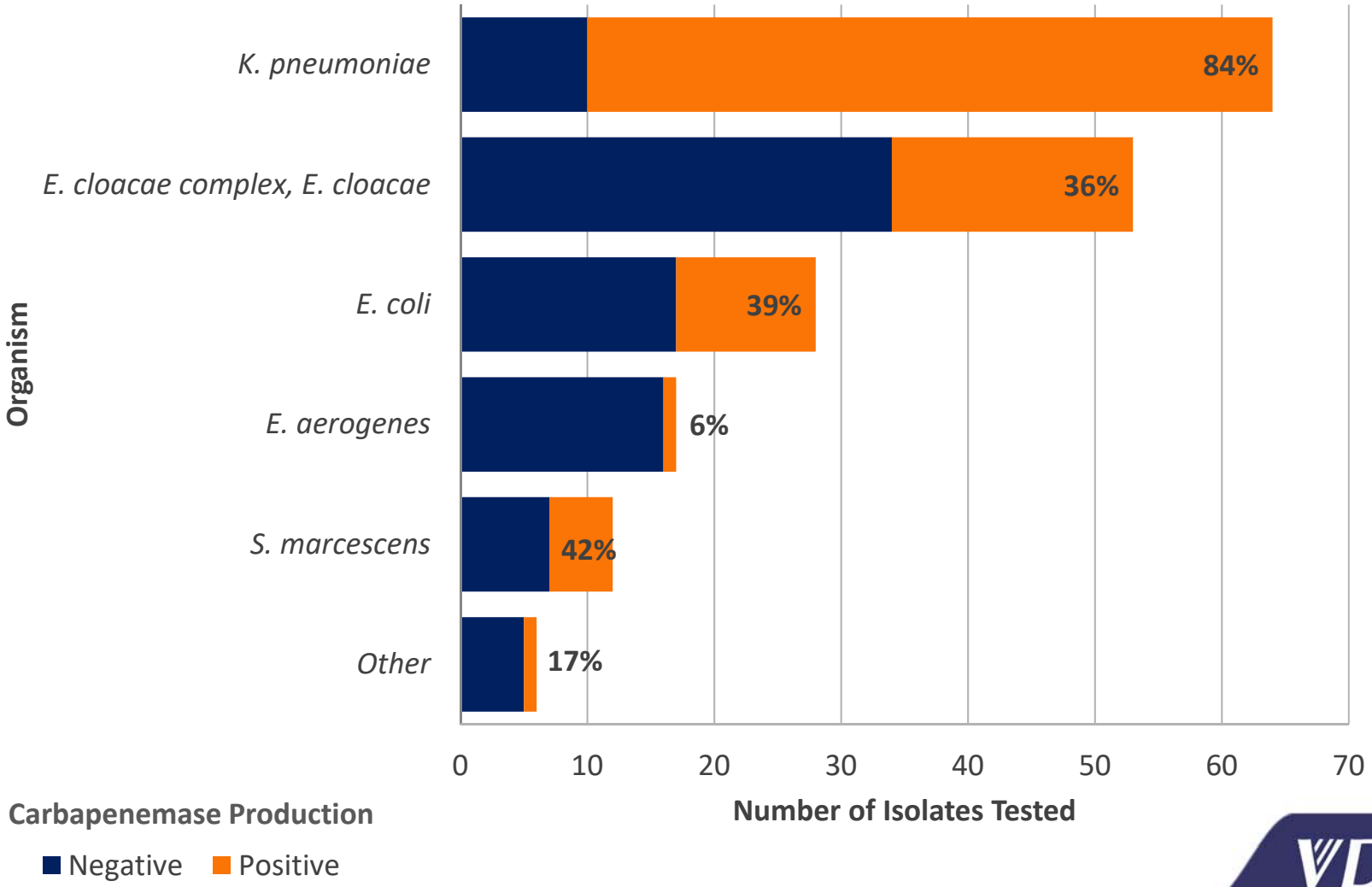
- Organisms with carbapenemases are resistant to all or most antibiotics tested, making them hard to treat
  - Patients that become infected with carbapenemases have a 50% mortality
- Carbapenemases can easily spread from people with and without symptoms of infection, between facilities, and between organisms
- Finding and responding to unusual resistance early, before it becomes common, can help stop its spread and protect people

Total Isolates Tested at DCLS (N=374)

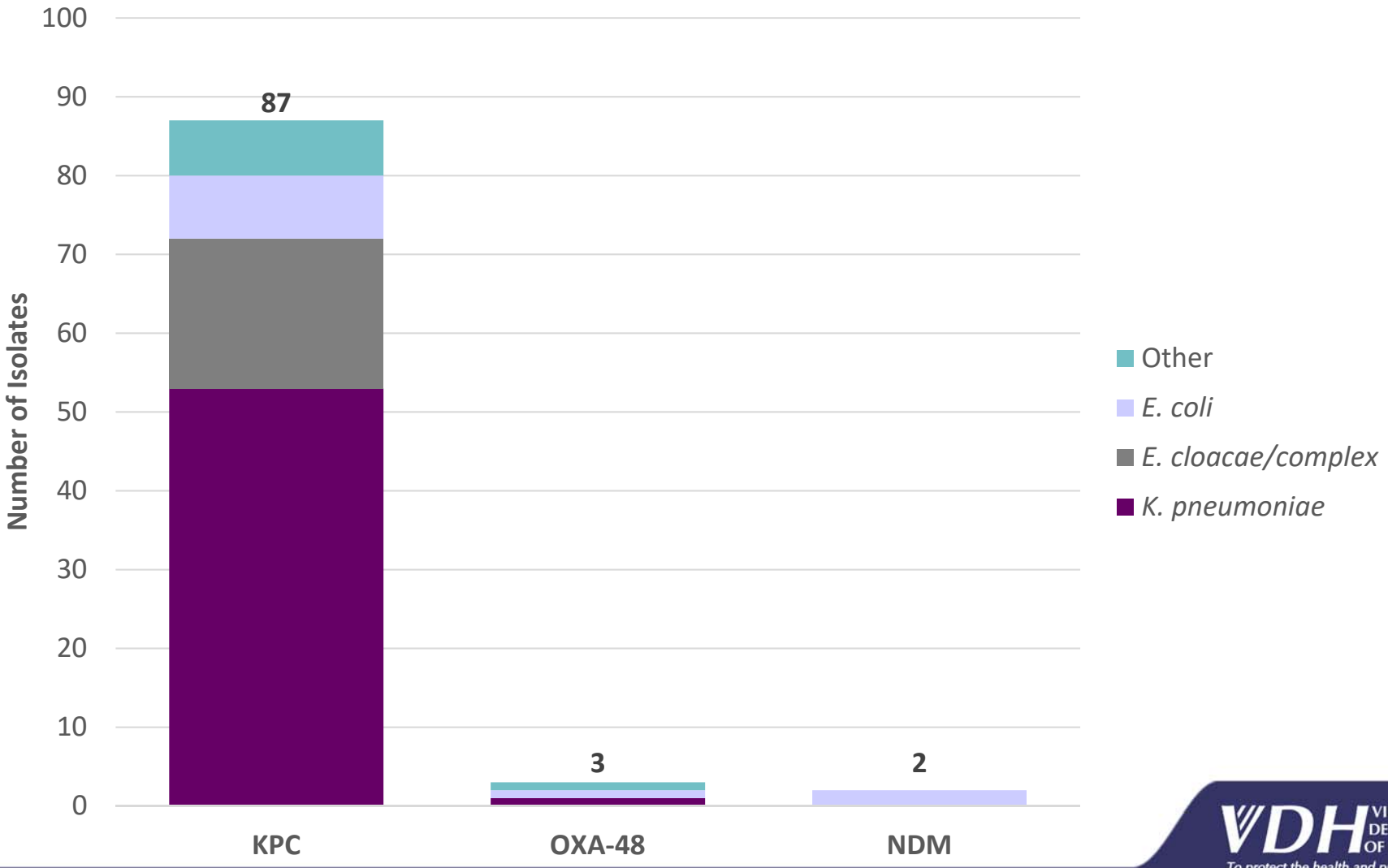
(March 26 – September 26, 2018)



CRE Organisms Tested for Carbapenemase Production at DCLS (n=180) (March 26 – September 26, 2018)



CP-CRE Clinical Isolates by Resistance Gene from Virginia Facilities (n=92) (March 26 – September 26, 2018)



Experience to Date

- Carbapenem-resistant organisms are everywhere
  - Extensive patient transfer networks (>650,000 transfers between facilities in Virginia*)
  - Communication gaps
- Rapid response is key to containment
  - More efficient use of resources
  - High-risk healthcare contact screening
- Admissions screening and pre-emptive contact precautions
  - International healthcare exposure
  - vSNF/LTACH admission
- Response is the same for colonization and infection
  - Once positive, always positive

*2014 CMS and MDS data for VA, MD and DC

Candida auris- a growing global threat

New Clonal Strain of *Candida auris*, Delhi, India

Anuradha Chowdhary, Cheshta Sharma, Shalini Duggal, Kshitij Agarwal, Anupam Prakash, Pradeep Kumar Singh, Sarika Jain, Shallu Kathuria, Harbans S. Randhawa, Ferry Hagen, and Jacques F. Meis

A new clonal strain of *Candida auris* is an emerging etiologic agent of fungemia in Delhi, India. In 12 patients in 2 hospitals, it was resistant to fluconazole and genotypically distinct from isolates from South Korea and Japan, as revealed by M13 and amplified fragment length polymorphism typing.

Candida auris–Associated Candidemia, South Africa

Microbiol Immunol 2009; 53: 41–44
doi:10.1111/j.1348-0421.2008.00083.x

ORIGINAL ARTICLE

***Candida auris* sp. nov., a novel ascomycetous yeast isolated from the external ear canal of an inpatient in a Japanese hospital**

Kazuo Satoh[1,2], Koichi Makimura[1,2], Yayoi Hasumi[1], Yayoi Nishiyama[1], Katsuhisa Uchida[1] and Hideyo Yamaguchi[1]

[1]Teikyo University Institute of Medical Mycology, 359 Otsuka, Hachioji, Tokyo 192-0395, [2]Japan Health Sciences Foundation, 13-4 Nihonbashi-Kodenmacho, Chuo-ku, Tokyo 103-0001 and [3]Genome Research Center, Graduate School of Medicine and Faculty of Medicine Teikyo University, Otsuka 359, Hachioji, Tokyo 192-0395, Japan

Fungal superbug Candida auris found in Victoria, health authorities on high alert

Public Health England

See more information about this Research and analysis

Research and analysis

Candida auris identified in England

Published 1 July 2016

First report of *Candida auris* in America: Clinical and microbiological aspects of 18 episodes of candidemia

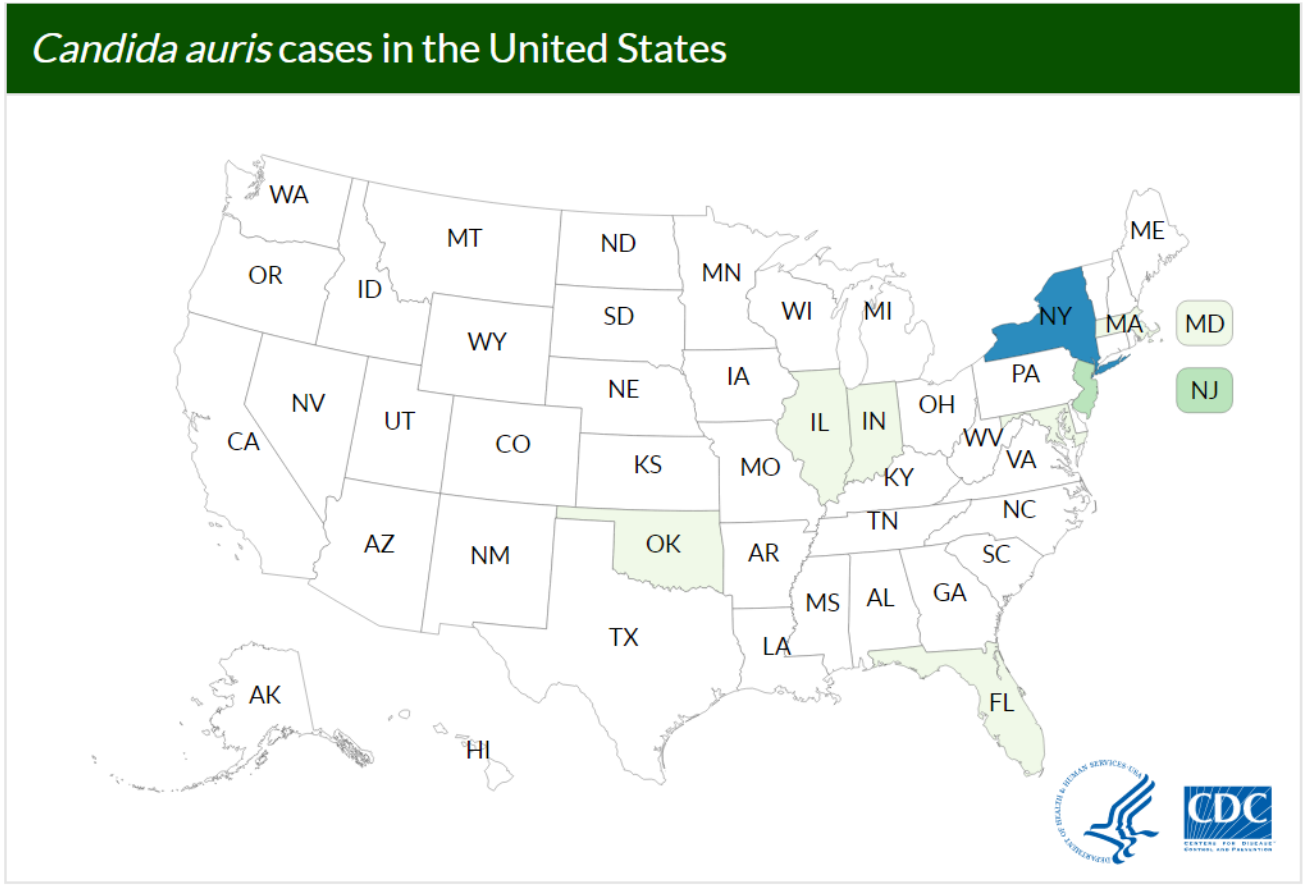
Belinda Calvo [a], Analy S.A. Melo [b], Armindo Perozo-Mena [c], Martin Hernandez [d], Elaine Cristina Francisco [b], Ferry Hagen [e,f], Jacques F. Meis [e,f], Arnaldo Lopes Colombo [b,*]

RAPID COMMUNICATION

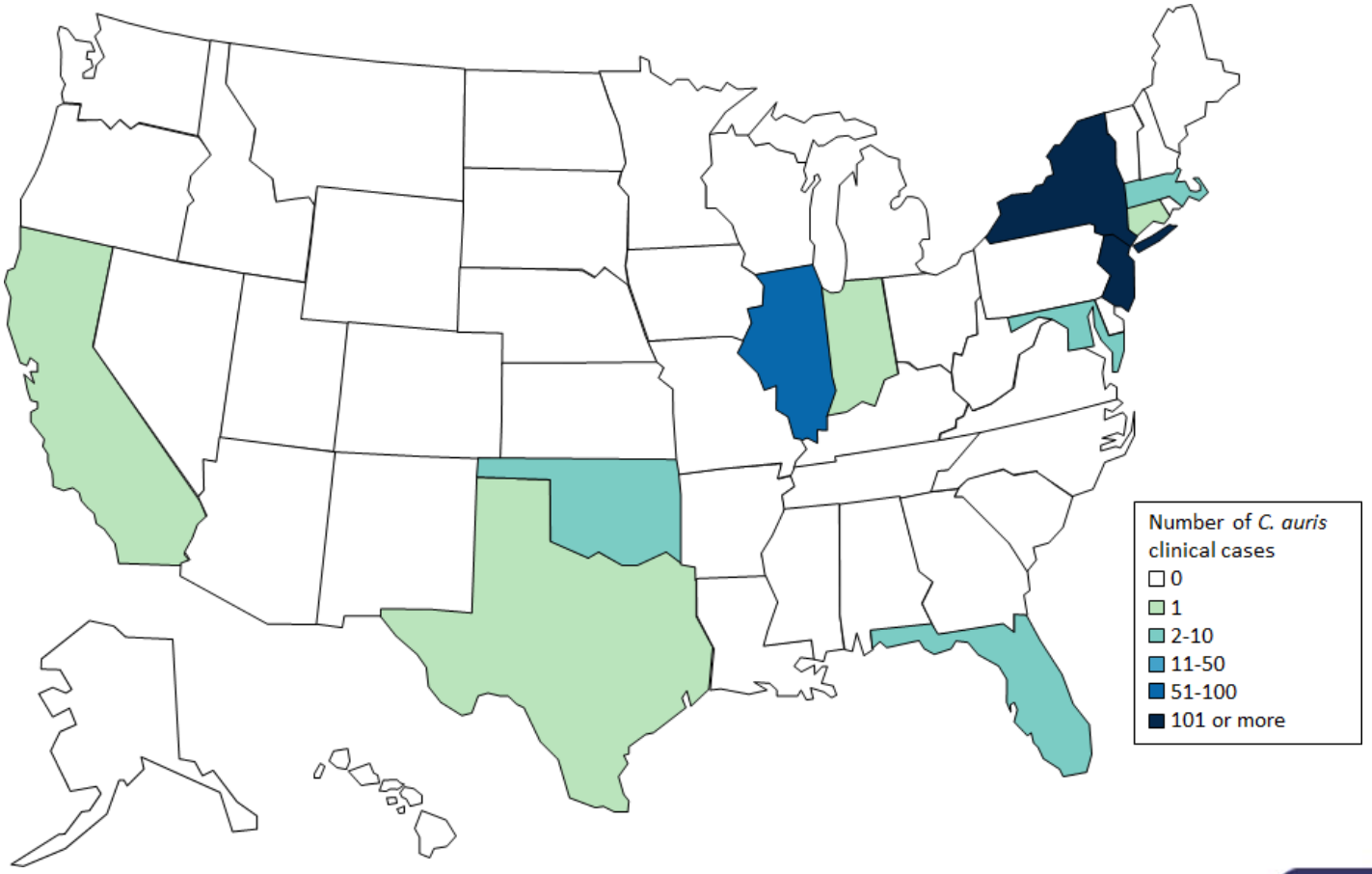
First reported case of multidrug-resistant *Candida auris* in Canada

IS Schwartz[1*], GW Hammond[1]

CDC case count as of June 16, 2017
86 cases



CDC case count as of September 30, 2018 confirmed clinical cases 433



Going Forward: A Coordinated Approach

- Improved communication
  - Intra- and inter-facility (transfer of information)
  - Reporting CP-CRE/CP-CRPA to health department

- Broader understanding of epidemiology in Virginia
  - Submission of CRE/CRPA isolates from all micro labs
  - Submission of *Candida auris* isolates

Acute Flaccid Myelitis (AFM)

AFM Information and Resources

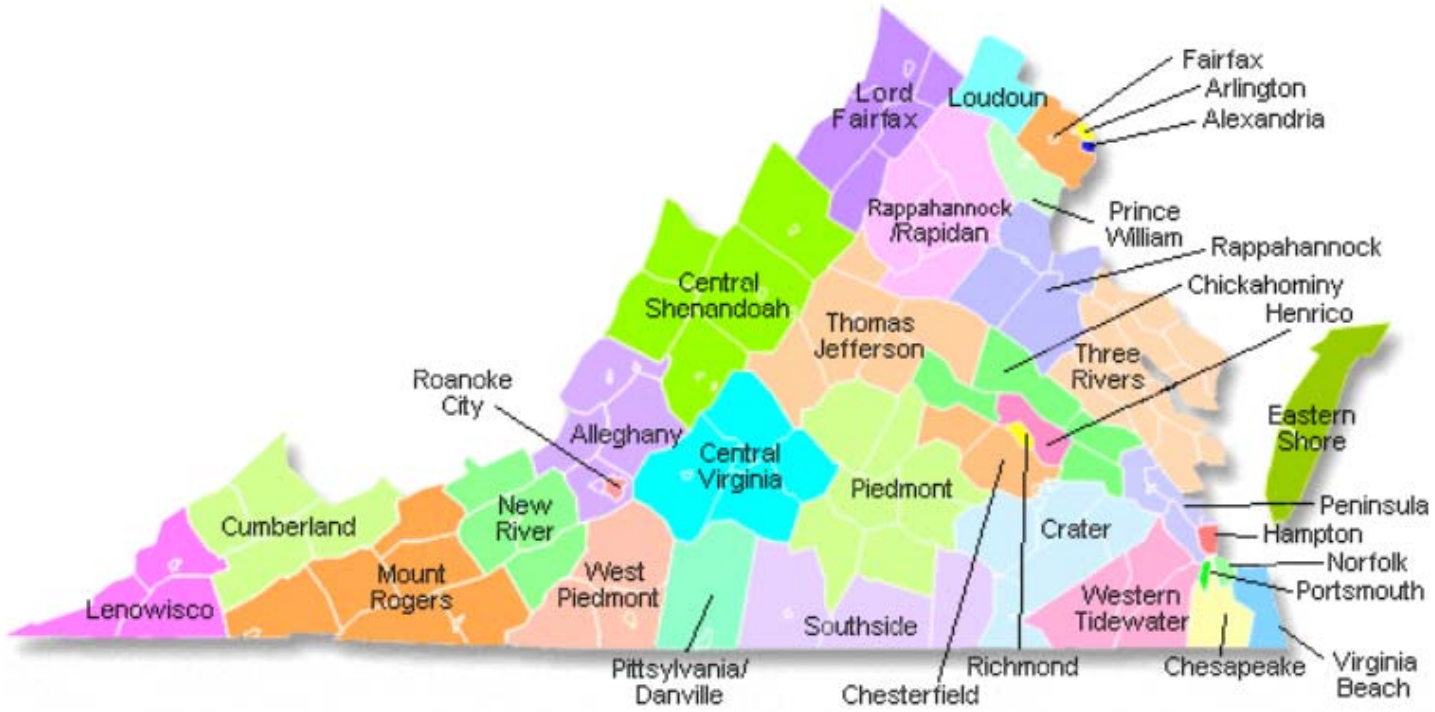
- Please report suspected AFM cases to local health department
  - VDH will contact CDC

- Clinician letter:
  - http://www.vdh.virginia.gov/clinicians/clinician-letters/acute-flaccid-myelitis/
- CDC Resources:
  - https://www.cdc.gov/acute-flaccid-myelitis/index.html
- Webinar on what healthcare providers need to know about AFM:
  - Presented on 11/13, but can access information here:
  - https://emergency.cdc.gov/coca/calls/2018/callinfo_111318.asp

Reminder to assess travel history and healthcare exposure!

- Important for routine patient evaluation
- Travel-associated diseases such as:
  - Malaria
  - Dengue
  - MERS-CoV
  - Vaccine-preventable diseases
- Assess risk for presence of carbapenemases not regularly found in the United States
- Ensure rapid triage and prompt infection control measures to minimize spread of infectious diseases

VDH Local Health Districts



http://www.vdh.virginia.gov/local-health-districts/

Thank you!

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