

Candida auris

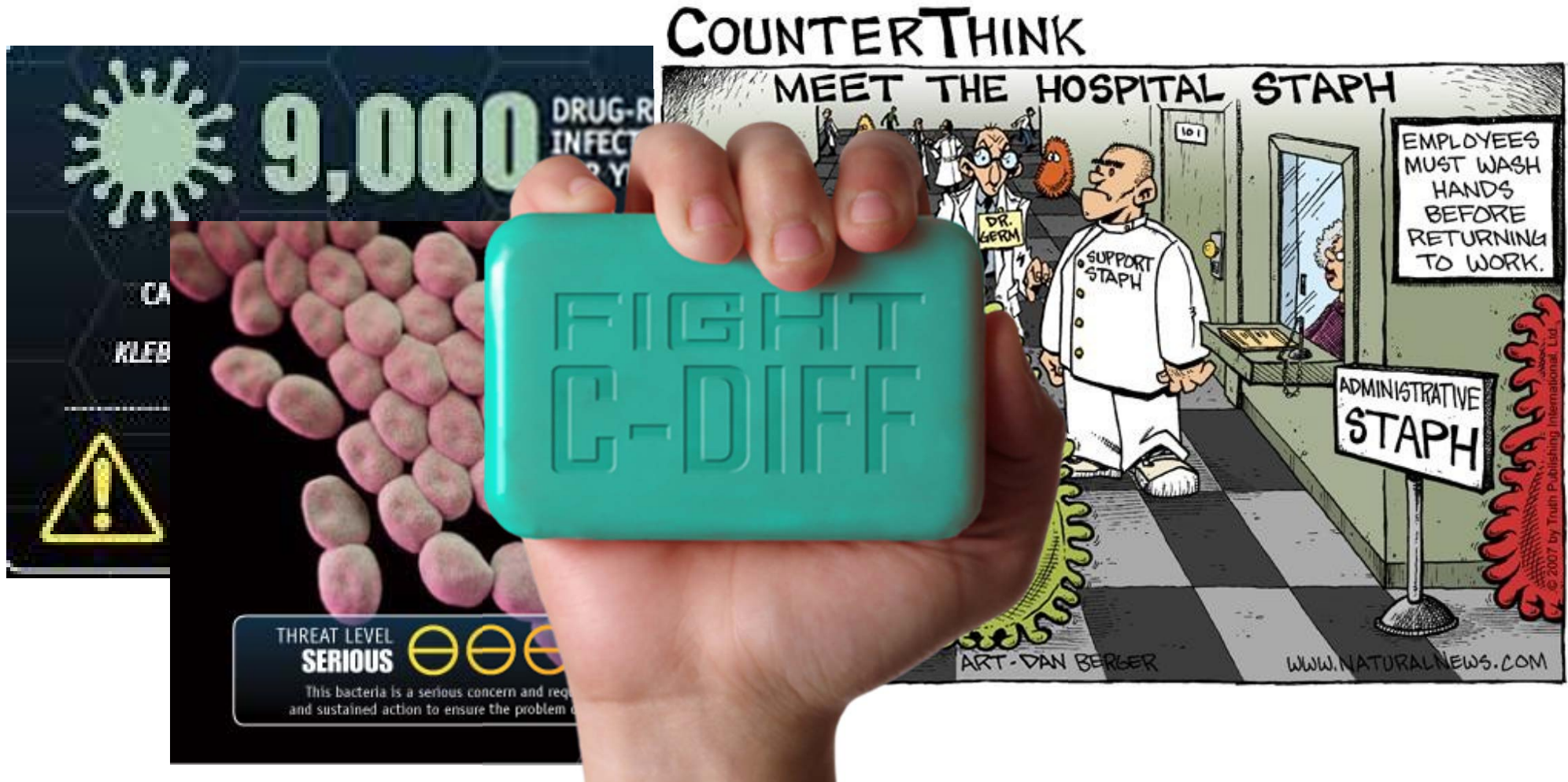
A rapidly emerging public health threat in the United States

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ELC Grantees Meeting

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HAIs: What healthcare professionals think



***Candida
auris***

THERE'S A FUNGUS
AMONG US.

April 10, 2014

Why is *Candida auris* a public health threat?

- Highly drug-resistant yeast
- Causes invasive infections associated with high mortality
- Spreads easily in healthcare settings

All the makings
of a fungal
superbug!



Multidrug resistant *Candida auris*

Polyenes



30% resistant

Azoles



90% resistant

Echinocandins



3% resistant

- A few isolates resistant to all three classes

Invasive infections

- Half of clinical cases are bloodstream infections
- Half of cases with bloodstream infections dies during that hospitalization



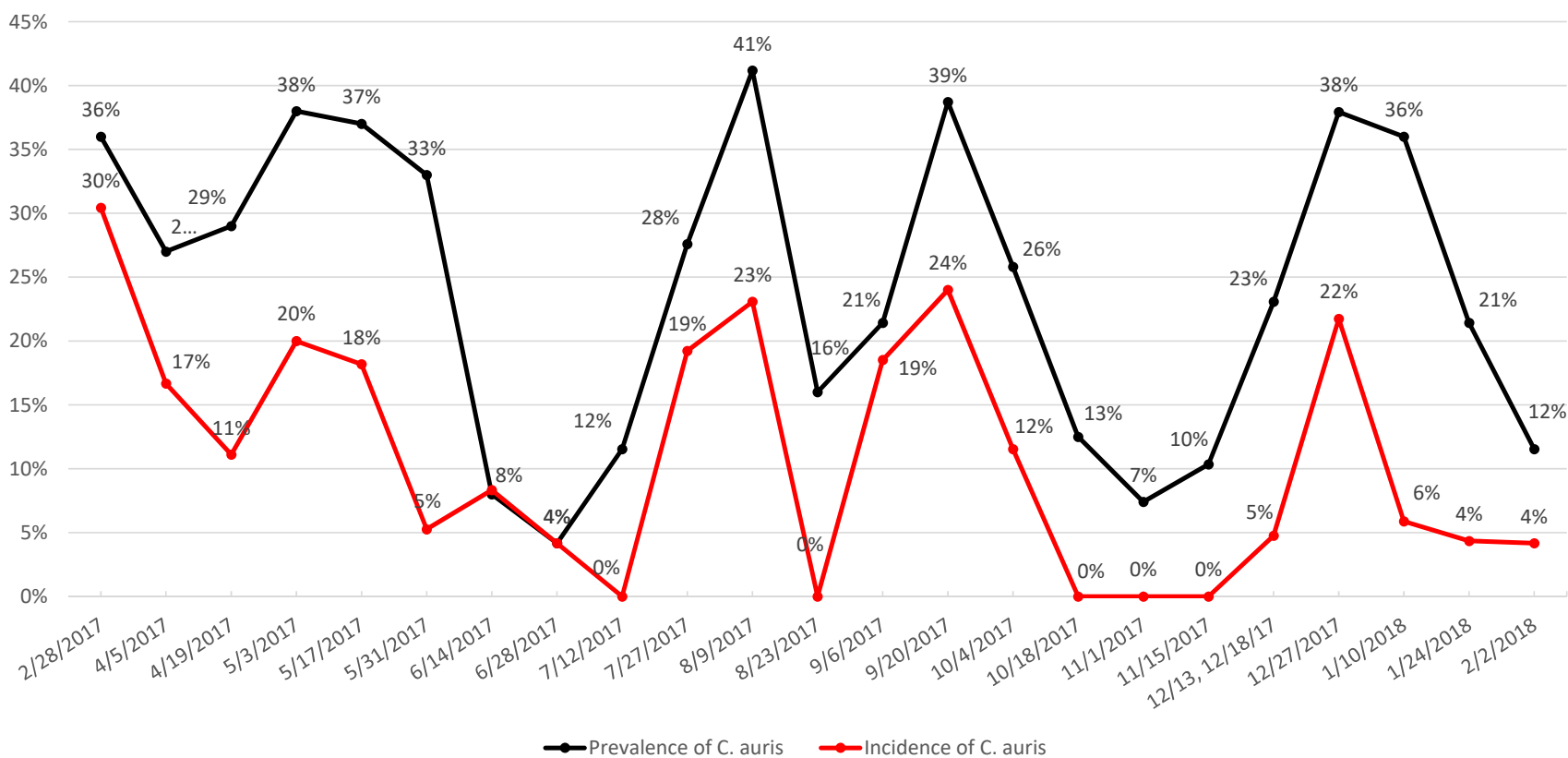
Affects the sickest of the sick

- Older age
- Multiple healthcare stays (acute and long term)
- Tracheostomy
- Ventilator
- Peg tube
- Central lines
- On antibiotics and antifungals

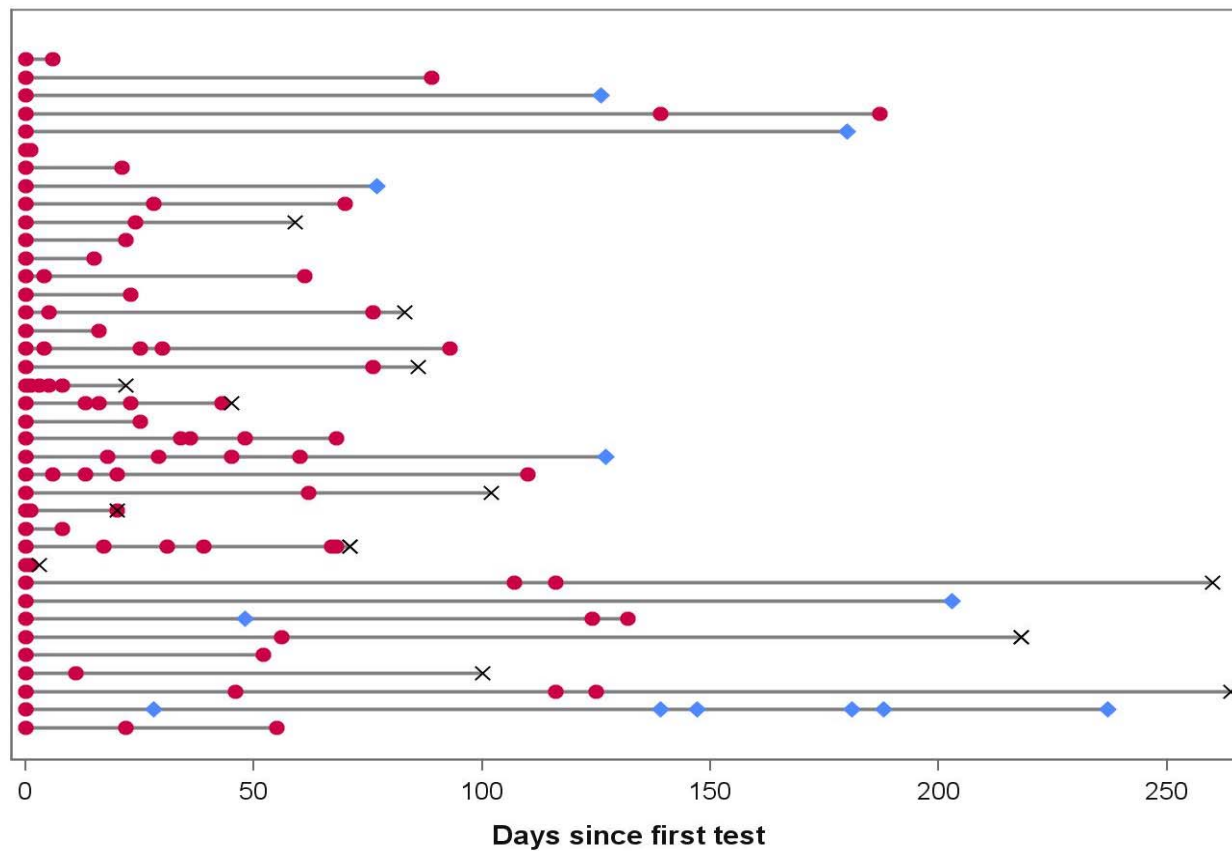


Spreads easily in healthcare settings

Incidence and Prevalence of *Candida auris* colonization at an LTACH



Long-term colonization



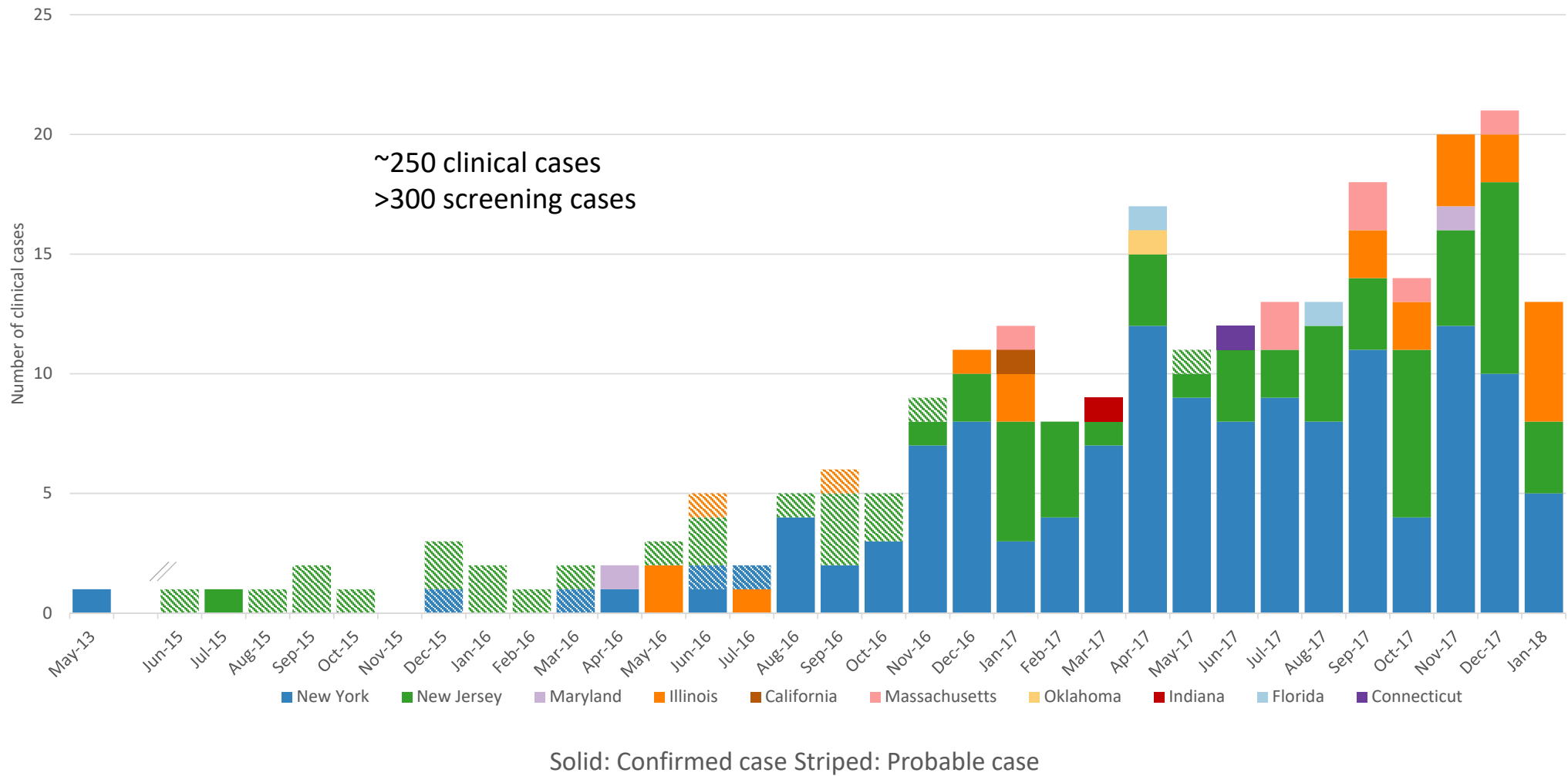
- Colonization poses a risk for:
- Invasive infection
 - Transmission to others

Slide courtesy of Emily Lutterloh, NYS DOH

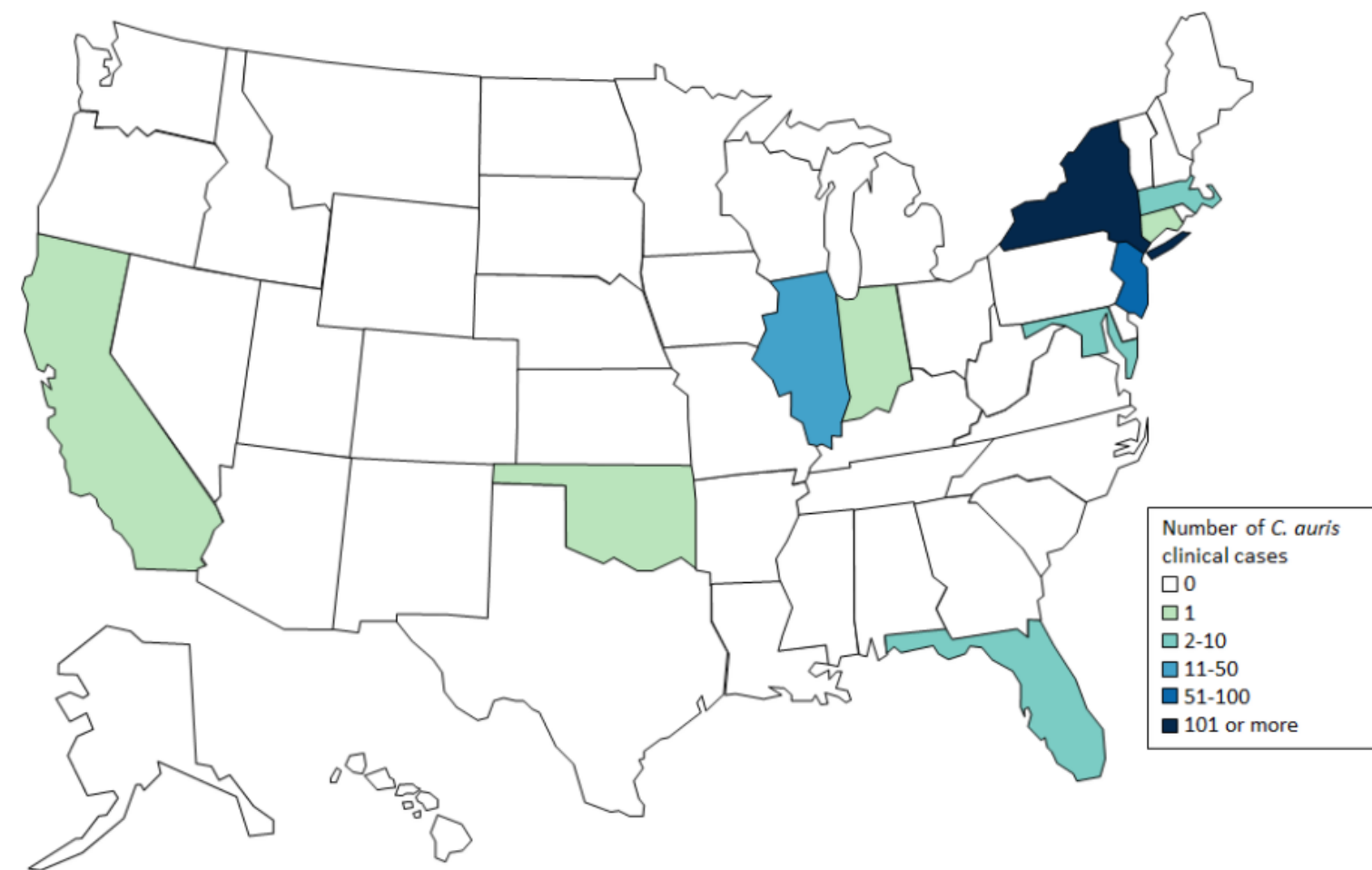
C. auris contaminates the environment



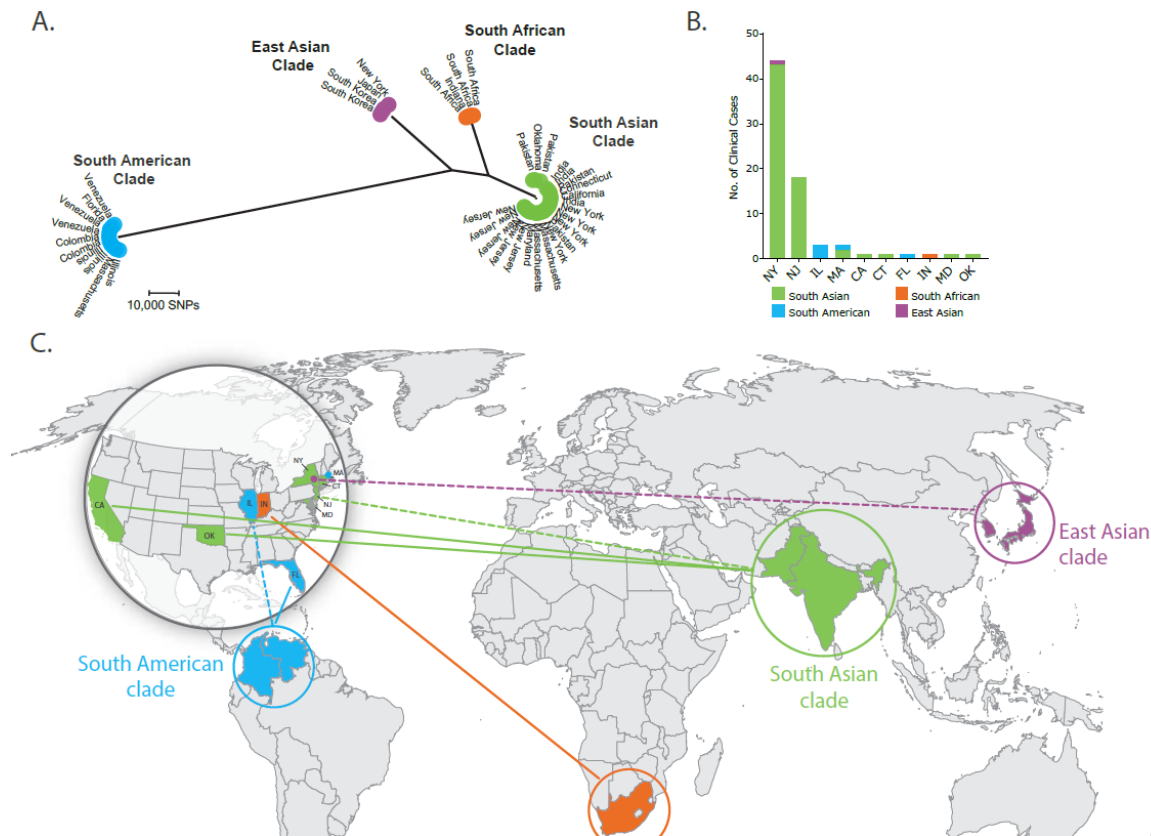
C. auris cases reported by state — United States, 2013–January 2018



U.S. Map: Clinical cases of *Candida auris* reported by state, United States, as of January 31, 2018



Cases have been imported to the U.S → local spread



Slide courtesy of Nancy Chow, CDC

Controlling the spread of *C. auris*



DETECTION



TREATMENT



INFECTION CONTROL

Challenges with identification

C. auris can be **misidentified** as:

- *Candida haemulonii*
- *Candida famata*
- *Candida sake*
- *Candida catenulate*
- *Candida guilliermondii*
- *Candida lusitanae*
- *Rhodotorula glutinis*,
- *Candida* spp. after a validated method of *Candida* identification attempted.

C. auris can be **correctly identified** using MALDI-TOF and DNA sequencing

More detection challenges

- 40% of clinical cases in the U.S. have been from non-bloodstream isolates (urine, bile, wounds, etc)
- Isolates from non-sterile sites may not be worked up to species level



Infection control is key for stopping transmission of *C. auris*



Hand hygiene

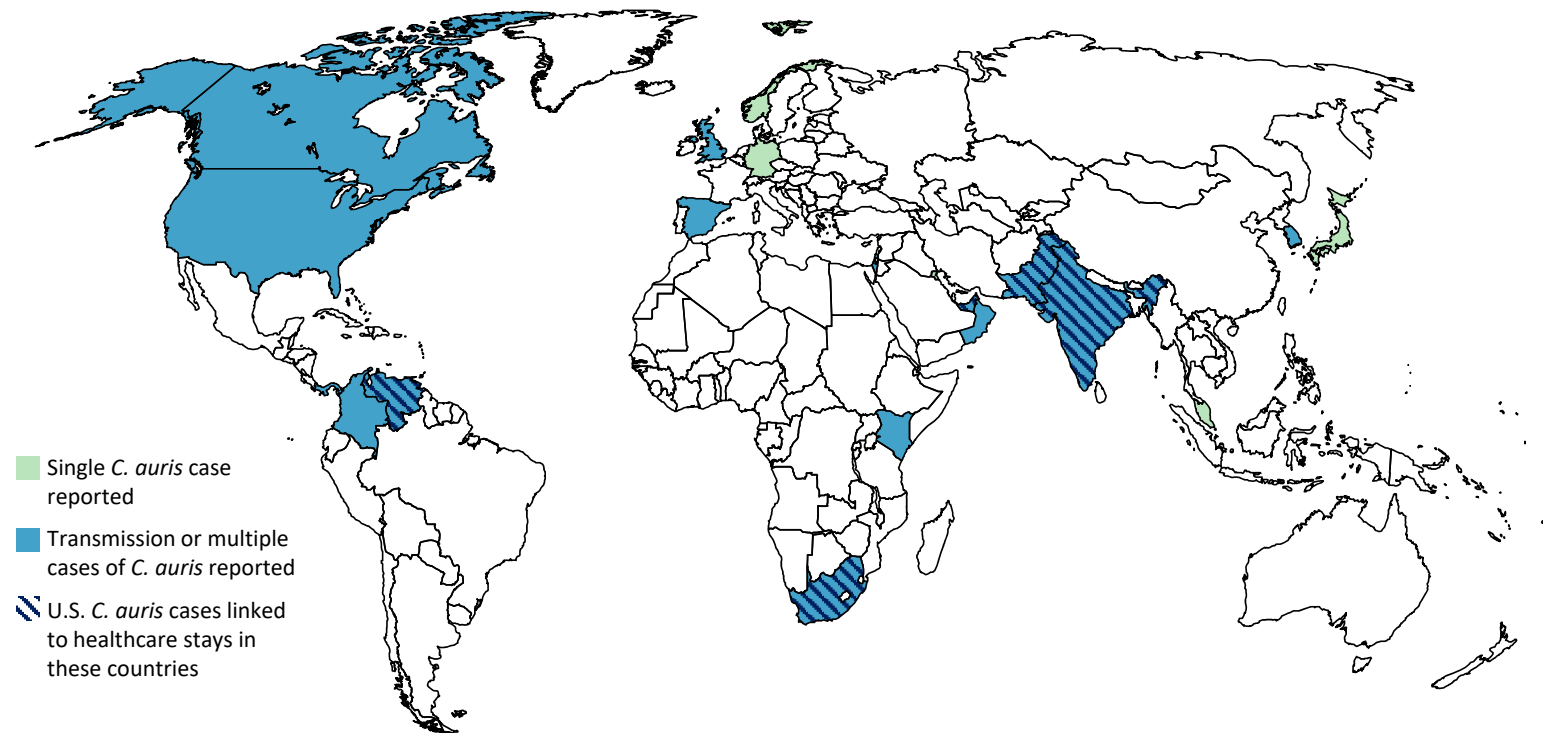


Contact precautions



Meticulous
environmental
disinfection

Global *C. auris* situation, March 2018



Now common in some international hospitals

Up to 40% of Candida infections in Indian and 1 Kenyan hospital

10% of Candida infections in private South African hospitals

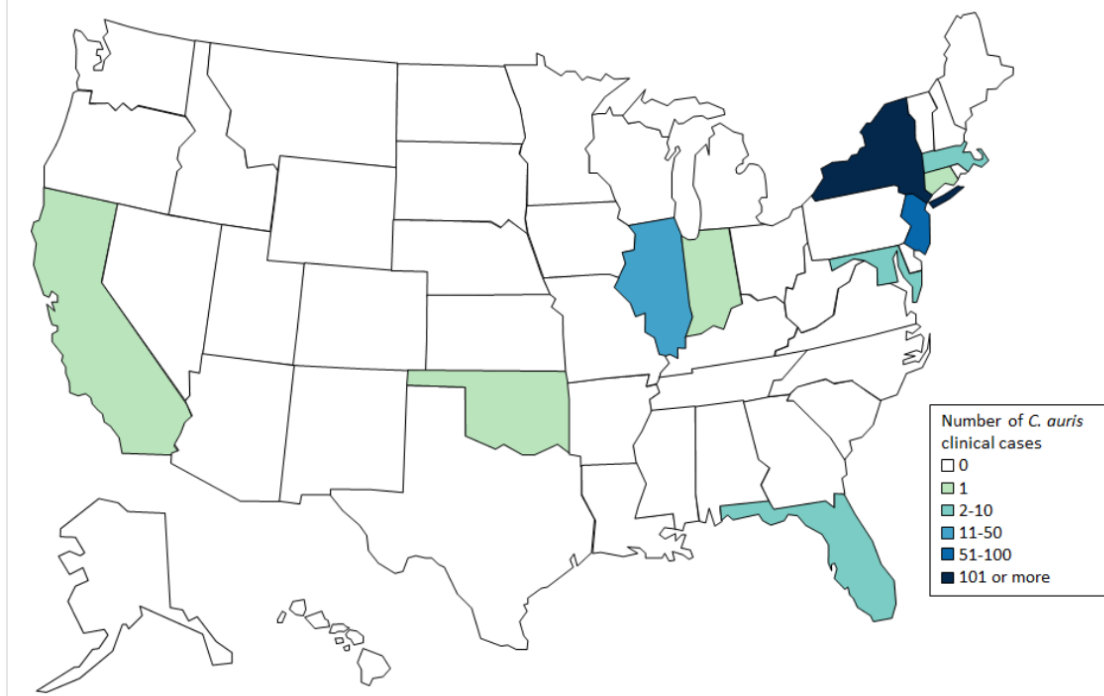
Second most common Candida spp in private South African Hospitals

U.S. Public Health Strategy



Improve awareness of *C. auris*, detection, and rapid identification of cases everywhere

U.S. Map: Clinical cases of *Candida auris* reported by state, United States, as of December 31, 2017



Containment Strategy in places with single/few cases

INTENSIVE RESPONSE

- Rapid detection
- Infection control measures and assessment
- Contact tracing
- Retrospective and prospective surveillance for additional cases



Slow the spread in places with many cases

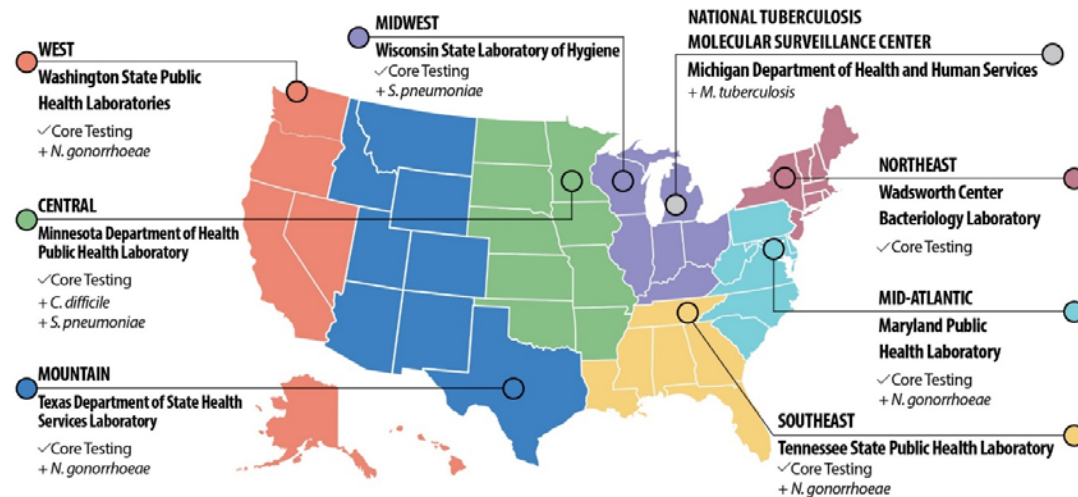
- Identify high risk facilities
- Intensive focus on infection control in these facilities to decrease transmission of *C. auris* and other MDROs
- Put safeguards in place in downstream facilities to prevent introduction/spread in those facilities
 - Admission screening
 - Pre-emptive contact precautions



What you can do in your state

Detection is the first step to control transmission

- Send out laboratory and clinical alerts !
- Survey laboratories to find out their ability to detect *C. auris*
- Use ARLN resources to work up suspected isolates



Report known or suspected cases of *Candida auris* to candidaauris@cdc.gov

