Orientation to CDI Collaborative:

A roadmap to decrease CDI rates in Nebraska

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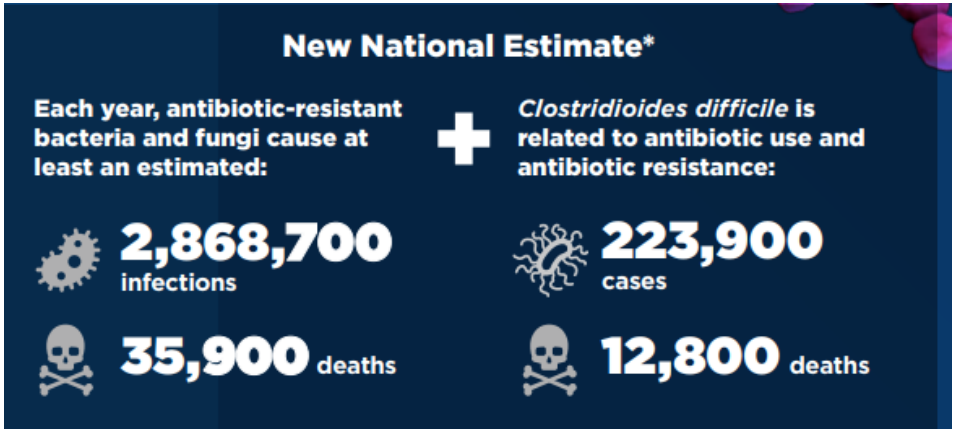
DEPT. OF HEALTH AND HUMAN SERVICES

ICAP
Infection Control Assessment and Promotion Program

Objectives

- Describe the impact of CDI on healthcare
- Discuss key CDI prevention strategies
- Outline the CDI collaborative project responsibilities of the partner facilities and ICAP/ASAP team

Antibiotic Resistance Threats in the US - 2019



https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf

Urgent Threats

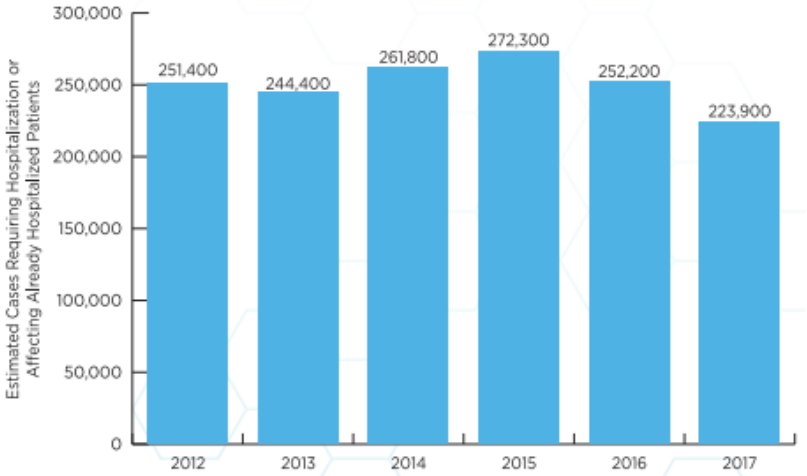
Impact of CDI on Healthcare

The Good News……

Appropriate infection control, antibiotic use and diagnostic testing practices can help decrease CDI rates

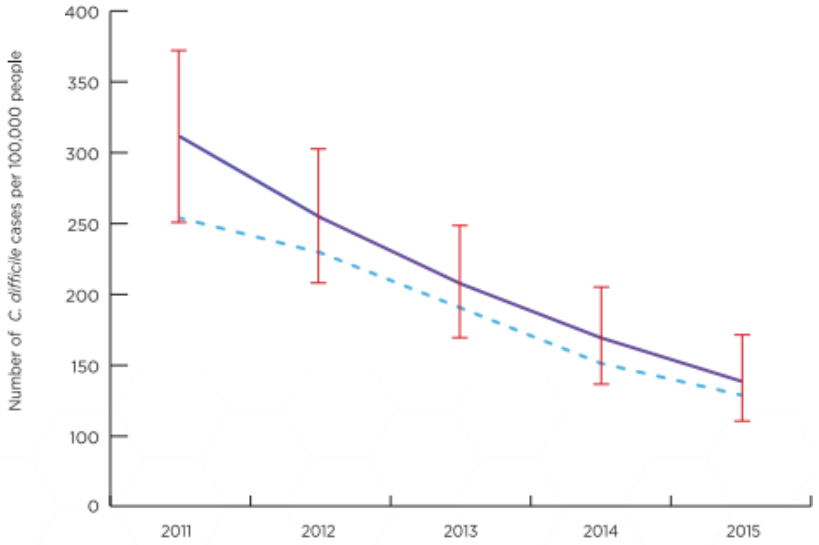
CASES OVER TIME

Continued appropriate infection control, antibiotic use, and diagnostic testing are important to maintain decreases in *C. difficile* cases.



C. DIFFICILE CASES

Improving antibiotic use may have contributed to the decrease in long-term care facility-onset *C. difficile* cases in 10 U.S. sites.



Adjusted cases for sex, race, and the percent of cases diagnosed by nucleic acid amplification test.

https://www.cdc.gov/drugresistance/pdf/threats-report/2019-ar-threats-report-508.pdf

CDI in Nebraska

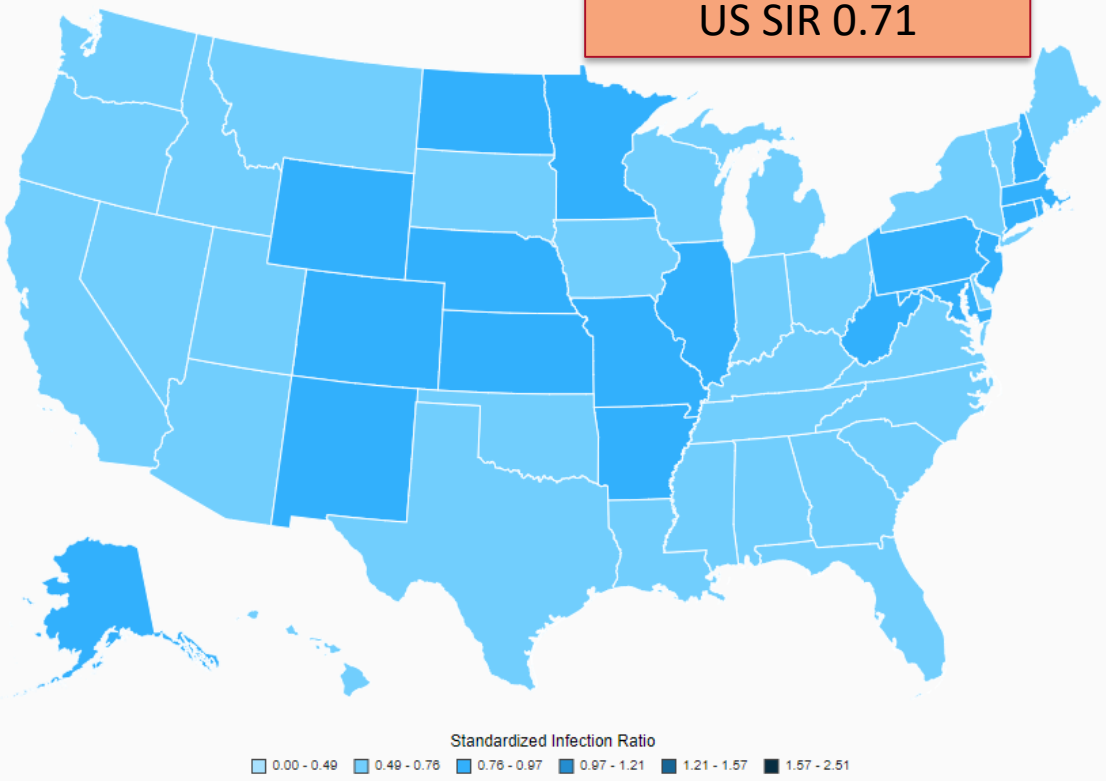
Nebraska SIR 0.83
US SIR 0.71

CDI STANDARDIZED INFECTION RATIOS BY STATE MAP

YEAR
2018

HOSPITAL TYPE
General Acute Care Hospitals

This map displays the variation in *C. difficile* Infections SIRs across the U.S. for general acute care hospitals in 2018. States with insufficient data reported for the selected year or hospital type are displayed in white.



https://arpsp.cdc.gov/profile/infections/CDI

Recommended Strategies to Prevent CDI

1. Isolate and initiate contact precautions for suspected or confirmed CDI cases (and notify receiving wards or facilities about patient CDI status to maintain contact precaution)

2. Confirm CDI in patients by clinical assessment and by implementing laboratory measures to ensure testing of only appropriate specimen. (Make sure to alert relevant healthcare personnel immediately after a positive test)

3. Perform daily and terminal environmental cleaning with *C. difficile* sporicidal agent and make sure to clean additional areas that are contaminated during patient movement

4. Develop infrastructure to support CDI prevention efforts including providing education to healthcare personnel, routinely auditing adherence to hand hygiene, contact precautions and high-touch surface cleaning and providing relevant feedback

5. Engage the facility antibiotic stewardship program (ASP) in implementing all 7 CDC-recommended core elements of ASP and promoting best practices focused on decreasing inappropriate antibiotic use especially minimizing high risk antibiotics

https://www.cdc.gov/hai/prevent/cdi-prevention-strategies.html

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Supplemental Interventions to Prevent CDI

Supplemental interventions can be considered during outbreak or if it rates are not going down even after all the recommended strategies have been implemented.

Examples of supplemental interventions are as follows:

- Limit the use of non-antibiotic medications that are hypothesized to increase CDI risk (such as PPI or H-2 receptor blockers)
- Restrict the use of highest risk antibiotics (e.g. fluoroquinolones)
- Expand use of environmental disinfection strategies (e.g. sporicidal agent for daily and terminal cleaning in all rooms on affected units)
- Use of additional disinfection of CDI patient rooms with no-touch technology (e.g. (UV light)

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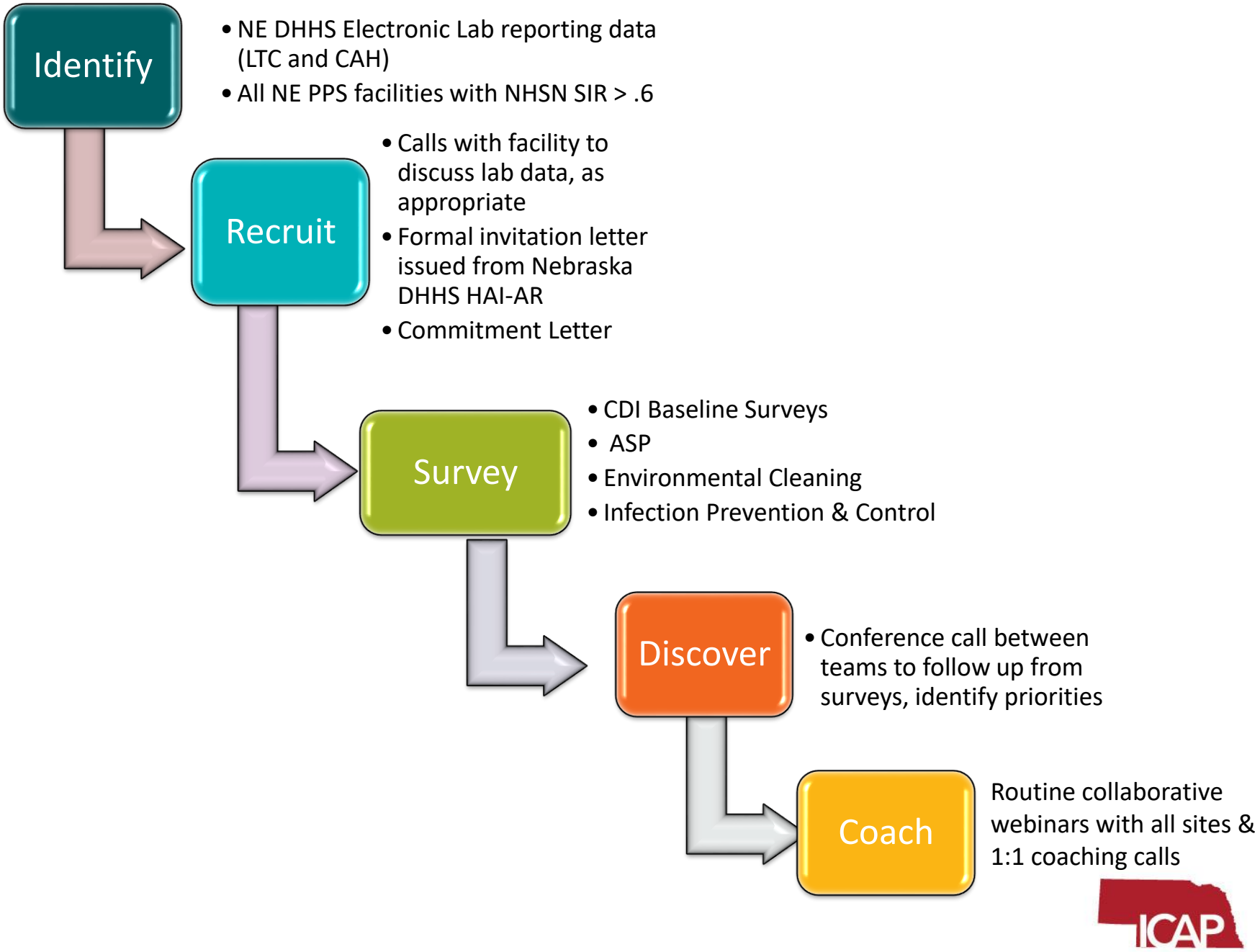
CDI Collaborative outline



Partner Facilities Responsibilities

- Continue to focus on CDI reduction efforts with the goal to achieve the targets prioritized during the baseline call with ASAP team
- Attend monthly webinars and share experiences (success or barriers) with partner facilities
- Discuss progress and or challenges with ICAP/ASAP team at least once quarterly on scheduled calls/zoom meetings
- Submit relevant data to ASAP team for generating reports on facility progress and peer comparisons
- Share ASAP generated reports with leadership and front-line staff and use it to further strengthen IPC and AS programs.

How to Monitor Progress

Success of CDI collaborative will be measured in various ways:

Primary Measures:

- Decrease in hospital/LTCF onset CDI rates

Secondary Measures:

- Decrease in overall antibiotic use
- Increase in Hand Hygiene Compliance Rates
- Increase in compliance with PPE donning/doffing protocols
- Increase in compliance with cleaning high-touch surfaces
- Decrease in number of overall *C difficile* testing orders
- Decrease in number of urine cultures sent to the labs
- Decrease in overall PPI use

Data for Internal Monitoring and External Benchmarking

At the start of the Collaborative (Now):

1. Antibiotic Use Data
   - Hospitals
     - Monthly Antibiotic Days of Therapy/1000 patient days (for 2019)
       OR
     - Monthly Antibiotic Days of Therapy/1000 days present

   - LTCF
     - Monthly Antibiotic Starts/1000 Resident Days (for 2019)
       AND
     - Monthly Antibiotic Days of therapy/1000 Resident Days

2. IPC Data
   - Number of positive *C difficile* test each month (2019)
   - Monthly Hand Hygiene Compliance (for 2019)
   - Any PPE compliance audit results done in 2019 (even if it is single audit)
   - Any EVS audit data for high-touch surface cleaning for 2019

Data for Internal Monitoring and External Benchmarking

On Quarterly basis:

1. Monthly antibiotic use for 2020
2. Monthly positive C. difficile test for 2020
3. Monthly compliance data (2020) for HH compliance
4. Monthly compliance data (2020) for PPE compliance
5. Monthly compliance data (2020) for high touch surface cleaning

Data Needed to Generate Reports and Performing Facilities Comparison

On Yearly Basis:

1. Report on Number of *C difficile* Tests sent to the lab each month in 2019 and 2020
2. Report on Number of Urine cultures sent to the lab each month in 2019 and 2020
3. Monthly PPI Days of therapy/1000 patient-days for 2019 and 2020
4. Follow up IPC and AS surveys (after mid-year)

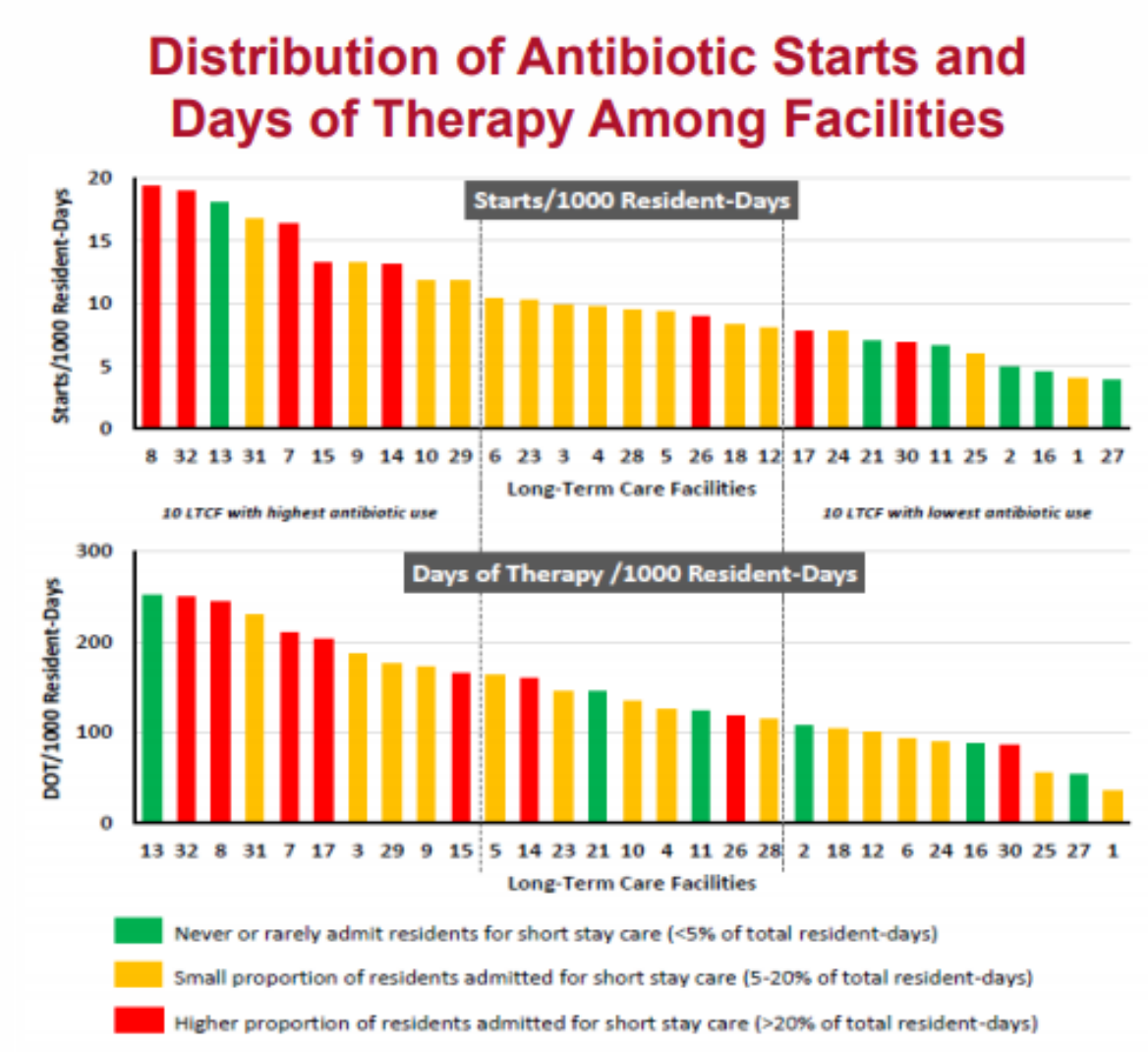
ICAP/ASAP Team Responsibilities

- Organize monthly webinars to discuss practical steps facilities can take to implement various CDI reduction strategies
- Facilitate group discussion and experience sharing during the monthly webinars
- Provide one-on-one assistance/coaching to the members of the CDI collaborative, as needed, to support program implementation at their facilities (including issues with NHSN CDI reporting)
- Share various tools, template and educational materials to participating facilities, as needed, to assist them in implementation of their planned intervention
- Compile reports from the data received from each facility and share it with the facilities for them to use it for feedback and additional planning

How to Report Data

- Every facility will have at least one user for ICAP/ASAP Electronic RedCAP Database
- Users will be receiving Emails reminding them on submitting data electronically with instructions on how to do that. (preferred method for data submission)
- Dr. Ishrat Kamal-Ahmed and Mounica Soma will be the ICAP and ASAP contacts for any questions related data submission.
- If for some reason, facilities prefer to send some of the data directly to ICAP/ASP instead of submitting to RedCAP we will be happy to enter it for them
- Over period of time, we will develop facilities comparison reports that will be made available on the RedCAP. The facility users can then login and download/print their own reports

Example of Comparative Report/Benchmarking



ICAP team will be available to assist facilities in following areas depending on the facility needs:

- Policy and Procedure Review and Changes
- Evaluate Products for Cleaning and Disinfection
- Introduce Competency-based Training for all HCW
- Training of EVS Workers
- Implement Monthly Audit and Feedback
- Use Infection Control Transfer Form

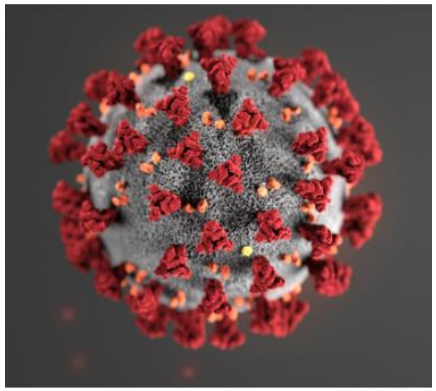
ASAP Team will be available to assist facilities in the following areas depending on the facility needs:

- Assess Antibiotic Stewardship Program
- Introduce Antibiotic Use Protocols
- Implement Prospective Audit and Feedback
- Adopt Diagnostic Testing Algorithms
- Educate HCW
- Target Reduction of PPI Use

CDI collaborative and Coronavirus Disease 2019

Advantages of joining CDI collaborative while getting ready for COVID-19:

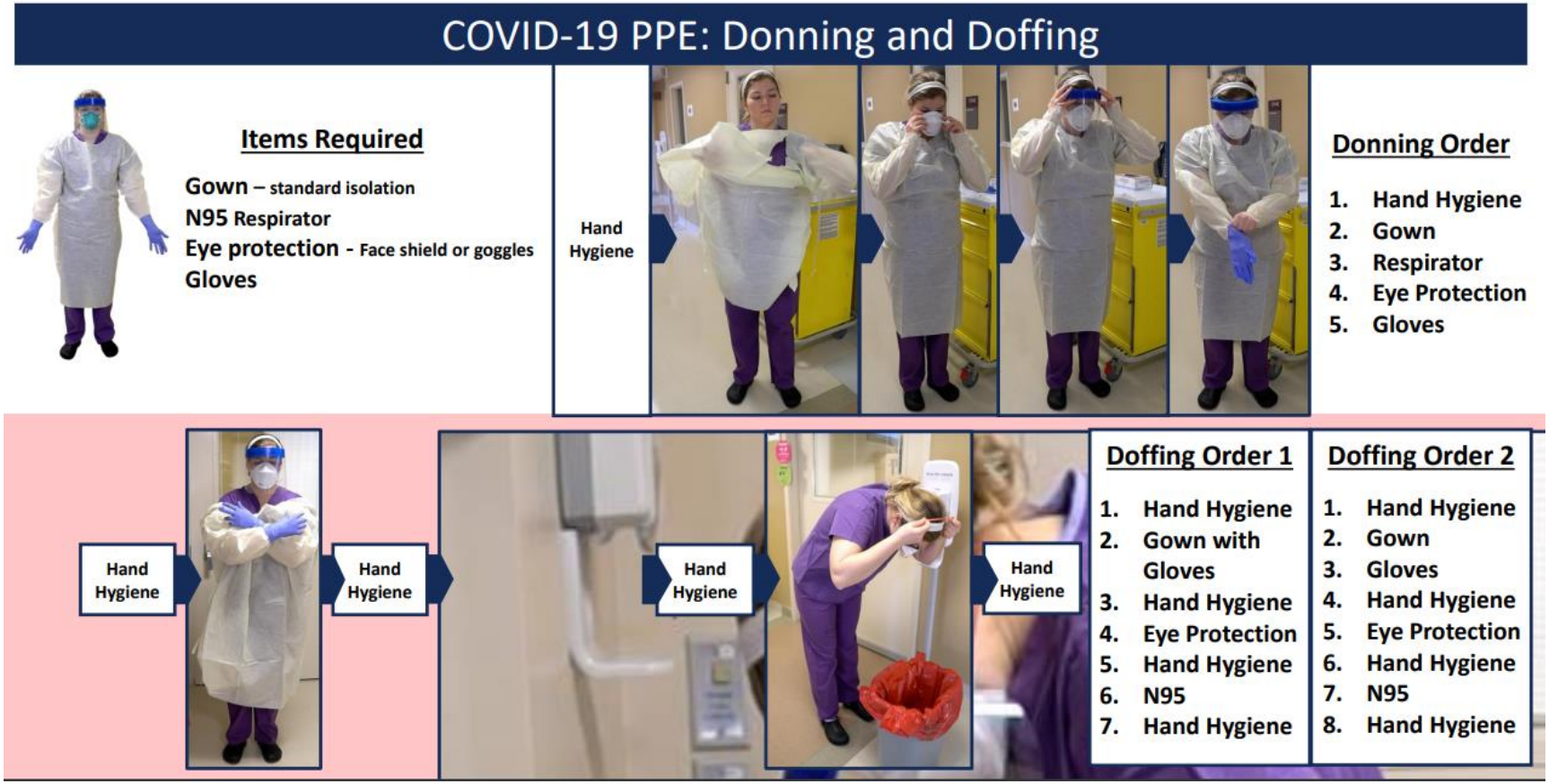
- Some of the CDI prevention strategies will also help facilities in being prepared to deal with COVID-19 and other potential threats
- DHHS HAI-Team including ICAP/ASAP will share some updated information and resources related to COVID-19 through our websites and during our webinars
- ICAP/ASAP team either can answer specific questions the facilities may have while getting ready for COVID-19 or may connect the facilities to the right person/place for getting the answer



Source: https://www.cdc.gov/coronavirus/2019-ncov/index.html

COVID-19 Resources

NETEC



NETEC: Personal Protective Equipment for COVID-10
Video link: https://youtu.be/bG6zISnenPg
Link to Poster and Training Tools
https://repository.netecweb.org/items/show/697

ICAP

Important Contact Information

For General Program Inquiries:

- Sue Beach SuBeach@nebraskamed.com 402-552-2881

For Infection Control and EVS Survey Data:

- Dr. Ishrat Kamal-Ahmed Ishrat.Kamal-Ahmed@nebraska.gov 402-471-7014

For Antibiotic and PPI use Data and any RedCap questions:

- Mounica Soma msoma@nebraskamed.com 402-552-2127

For Infection Control Program Related Questions:

- Kate Tyner ltyner@nebraskamed.com 402-552-2882

For NHSN CDI reporting related questions

- Margaret Drake Margaret.Drake@nebraska.gov 402-580-8955

For EVS program related Questions:

- Teri Fitzgerald tfitzgerald@nebraskamed.com 402-552-6745

For LTCF Antibiotic Stewardship Questions:

- Dr. M. Salman Ashraf salman.ashraf@unmc.edu 402-559-7317

For Acute care Hospitals Antibiotic Stewardship Questions

- Dr. Trevor Van Schooneveld tvanscho@unmc.edu 402-559-8376

Upcoming Webinars

- Diagnostic Stewardship
- Environmental cleaning and disinfection
- Hand Hygiene
- Transmission Based Precaution
- Ways to minimize high risk antibiotic prescribing

Save the Date

Nebraska Antimicrobial Stewardship Summit Focused on Prevention of CDI on May 29th 2020

Thank You

Questions and Discussion…