ANTIMICROBIAL RESISTANCE SURVEILLANCE TASK FORCE, YEAR 8

Progress Report for activities from August 1, 2023, through July 31, 2024.

ARSTF

Introduction

The Antimicrobial Resistance Surveillance Task Force (ARSTF) focuses on developing recommendations and resources for strengthening public health surveillance of antimicrobial resistance (AR) in the United States. The Task Force is Co-Chaired by the Centers for Disease Control and Prevention (CDC), the Council of State and Territorial Epidemiologists (CSTE), and the Association of Public Health Laboratories (APHL). Its purpose is coordinating national efforts to enhance public health surveillance of AR threats. To achieve this, the Task Force has advanced these activities through three Workgroups, each addressing key priority areas. The Year 8 annual report describes the progress made through these efforts from August 1, 2023, through July 31, 2024.

Key Accomplishments for Year 8 Task Force Activities

This summary identifies key accomplishments with details provided below.

- The **Interoperable Linkages Workgroup** expanded membership and has observed increased attendance and participation. The Workgroup has developed problem statements, identified areas for intervention, and created a plan for action in the following three priority areas:
    - Improve interoperability between AR Lab Network regional labs and jurisdictional Health Departments.
    - Promote best practices related to the National Healthcare Safety Network (NHSN) Antimicrobial Resistance (AR) Option and reporting of Antimicrobial Susceptibility Testing (AST) data, with a focus on addressing data suppression and reporting challenges.
    - Support uptake of CDC's Healthcare-Associated Infections, Multidrug-Resistant Organisms (HAI MDRO) Message Mapping Guide (MMG).
- The **One Health Workgroup** has incorporated a One Health model covering human, animal, environmental, and plant health sectors. Their main initiative has been to develop a One Health crosswalk worksheet, which is a repository of information for existing surveillance systems, case definitions, toolkits, etc., stratified by four One Health sectors: human, animal, environmental, and plant health. They aim to complete the crosswalk worksheet by the end of 2024 and then produce a narrative report on AR surveillance, based on the worksheet, to highlight similarities, differences, and areas for improvement. The crosswalk worksheet will serve as a resource for public health partners and will be shared as a template for jurisdictional use and further customization as an appendix within the narrative report.
- The **Workforce Development Workgroup** has focused on the compilation of AR surveillance training resources and aims to provide resources for building and maintaining an effective AR surveillance workforce, including training in various relevant sectors. They began this work by expanding an existing draft training list that was previously started by the Task Force in 2020. The Workgroup determined that similar lists of training resources had emerged online over the past few years. They are now exploring options for increasing the value added by their resource in ways that complement the work of CDC and other partners.
- The **Core Group** maintained their biweekly meeting cadence. They provided scientific oversight, project management, meeting planning, and administrative support; promoting transparency among the Task Force by sharing relevant documents in the ARSTF Community within CSTE Connect (a discussion board and file library hosted by CSTE). The Core Group facilitated

meetings to build connections and foster collaboration across Workgroups and among partners. They planned and executed three Task Force meetings and relevant sessions at the 2024 CSTE Annual Conference.

- o 2023 Fall and 2024 Spring Task Force member meetings: Facilitated updates and discussions, strategic planning, and goal setting within the Task Force.
- o 2024 Spring meeting with invited guests: Featured presentations on changes in reporting requirements related to NHSN's Antimicrobial Use and Resistance (AUR) Module (which comprises the Antimicrobial Use [AU] option and AR option), HAI MDRO MMG, and Pathogen Genomics Centers of Excellence (PGCoE), resulting in collaboration with key partners with approximately 165 participants in attendance.
- o 2024 CSTE Annual Conference: ARSTF Co-Chairs and Co-Leads presented updates on Workgroup activities, led informational presentations relevant to the three Workgroup's priority areas, and facilitated a participant discussion to identify workforce needs related to ARSTF.

Through these comprehensive activities, the Task Force has made significant progress in advancing its mission and achieving its objectives.

Task Force Overview and In-Depth Activities

ARSTF Organizational Structure

The Task Force operates through a structure involving a Core Group and Workgroups. The Core Group is comprised of three Co-Chairs, one each from CSTE, CDC, and APHL, and additional staff from each organization. The Core Group is responsible for planning and managing the work of the Task Force. The three Co-Chairs liaise between the Task Force and their respective organizations to ensure that relevant collaborators are familiar with Task Force activities and that the work is informed by input from key partners. The Co-Chairs direct the Task Force's work based on their expertise and the perspectives of their organizations. CSTE supports the Task Force, offering technical, logistical, meeting facilitation, and administrative assistance.

The Core Group designates Workgroups to assist in planning and implementing objectives. Each Workgroup has Co-Leads and members, identified from the memberships and key partners of each ARSTF participating organization (i.e., CDC, CSTE, and APHL).

Workgroup Progress

The Workgroups convene monthly to advance toward their goals and objectives. Workgroup Co-Leads collaborate closely with Core Group members via email and meet quarterly to review progress and gather insights. Additionally, Workgroup Co-Leads present progress updates, concerns and challenges at larger Task Force meetings, ensuring alignment of objectives and identification of appropriate next steps.

In Year 7, the Workgroups were in the initial stages of formation, laying the groundwork for their future efforts. In Year 8, they have found their rhythm and begun to develop tangible products, making significant progress through their work.

Interoperable Linkages Workgroup: Promoting interoperable linkages between laboratory data and epidemiologic case findings

Joseph Gerth, MPH, from the Massachusetts Department of Health, and Hsiu Wu, MD, from CDC, are Co-Leads for this Workgroup.

The Interoperable Linkages Workgroup has made significant progress by expanding its membership and achieving improved participation and input from all members. Although the group initially faced challenges with member participation, this expansion has fostered a more inclusive and comprehensive approach to addressing the group's objectives. The recruitment strategy focused on attracting individuals with experience and interest in three main priority areas.

The priority areas for this group are as follows:

- Improve interoperability between AR Lab Network regional labs and Health Departments by improving communication between AR Lab Network labs and state surveillance systems.
- Promote best practices related to NHSN's AR Option and reporting of AST data, with a focus on addressing data suppression and reporting challenges.
- Support the uptake of CDC's HAI MDRO MMG by highlighting its relevance and potential to streamline jurisdictional reporting and processes.

The group has worked to develop detailed problem statements and identify next steps for each of the first two priority areas. These initial plans include collecting information to inform development of best practice resources, which may take form as a white paper or toolkit materials. The outcome of these processes will highlight potential collaborations and partnerships to advance the group's activities.

The Workgroup made significant progress and completed their third priority through the following efforts. CDC's HAI MDRO MMG has had limited adoption since its release more than five years ago, with only three states fully onboarded and four more in progress as of Q1 2024. Challenges include jurisdictional variability in reporting requirements, the complexity of integrating multiple laboratory results into surveillance systems, and the need for collaboration between epidemiology and informatics staff. CDC summarized that while 84% of jurisdictions have at least one reportable condition appropriate for HAI/AR MMG use, barriers persist, such as manual data extraction and limited informatics capacity. Efforts to promote MMG adoption included a discussion at the 2024 CSTE Annual Conference, where jurisdictions such as Michigan and Rhode Island shared their experiences, highlighting the benefits of standardization for national surveillance and the operational hurdles posed by implementation. These efforts were led by CDC staff who are participants in the workgroup, with feedback from workgroup members (i.e., CDC effort with ARSTF input). Future steps will involve collaborative efforts between CDC and CSTE with a focus on education for HAI/AR and informatics staff, technical assistance, and forming workgroups to share best practices. Enhanced uptake of the MMG could streamline reporting, improve data integration, and support public health actions to address multidrug-resistant organisms. The results of this priority have been made available to CDC and jurisdictions wishing to onboard the MMG and aid them in this work (*For additional information please contact CSTE's National Office [contact for ARSTF](.)*

One Health Workgroup: Approaching antimicrobial resistance surveillance from a One Health perspective

Andrew Hennenfent, DVM, MPH, DACVPM from the Iowa Department of Health and Human Services,

and Ryan Jepson M(ASCP) from the State Hygienic Laboratory at the University of Iowa are the Co-Leads for this Workgroup.

The One Health Workgroup has made considerable strides in broadening its expertise to cover a comprehensive One Health approach that includes human, animal, environmental, and plant health. Their main initiative is the development of a One Health crosswalk worksheet, a tool designed to identify available resources across these sectors. Examples of information being identified in the crosswalk include surveillance systems, funding sources, and AST breakpoints. Each month, the group has worked to build the list of resources within the four sectors. They aim to complete the crosswalk worksheet by the end of 2024. The ultimate objective is to develop a narrative report based on crosswalk information, highlighting similarities, differences, and areas for improvement across the sectors to serve as a resource for public health partners at various levels. In addition, the crosswalk worksheet will be shared for jurisdictional use and awareness so that the tool can be customized and developed further as needed. Through this process, partners can provide input to the Workgroup and indicate additional gaps for further investigation. The Task Force has also discussed potential dissemination strategies for the final product beyond the addition to the CSTE ARSTF website.

Workforce Development Workgroup: Develop capacity among the workforce conducting antimicrobial resistance surveillance, through development on essential surveillance skills and related topics such as antimicrobial stewardship.

Gregory Danyluk, Ph.D., MPH, MS, from the Florida Department of Health in Polk County, and Daniel Evans, MS, CIC, REHS/RS, CPH, from the Minnesota Department of Health, are the Co-Leads for this Workgroup.

The Workforce Development Workgroup was initially tasked with updating and compiling available AR surveillance training resources. The project has evolved, and the scope expanded to create a resource that jurisdictions would find more valuable than a simple list of training resources. The Workgroup members are now exploring options for increasing the added value presented by their resource in ways that complement the work of CDC and other partners. Overall, the Workforce Development Workgroup has made substantial progress in vetting the training resource list, which is expected to be released in early 2025.

Core Group Activities

The Core Group planned and executed three Task Force meetings, each contribut**ed** to advancing Task Force and Workgroup objectives. Meeting twice per month, the Core Group maintained a steady cadence throughout the year, ensuring effective planning and Workgroup support. To maintain transparency, the Core Group shared relevant documents in the ARSTF Community within CSTE Connect, ensuring all members had access to the latest information. Their efforts extended to providing scientific and general support for project management and administrative duties, thereby enhancing the overall efficiency and effectiveness of the Workgroups. Through these comprehensive activities, the Core Group significantly contributed to the progress and success of the Task Force.

Workgroup Support

Throughout this year, the Core Group provided various types of support to the Workgroups. Support included attending monthly meetings and holding check-ins with Workgroup Co-Leads to facilitate progress, guide the scientific direction of activities, ensure effective communication, and address

challenges. These interactions included additional support, when needed, for organizing monthly Workgroup meetings and supporting outreach efforts to recruit new members and manage the processes for membership updates. Additionally, the Core Group worked closely with the Workgroups for input on topics for Task Force meetings and discussions at the 2024 CSTE Annual Conference. This support was central to fostering collaboration and alignment among the Workgroups' activities and key partner priorities, contributing toward ARSTF's objectives.

ARSTF Core Documentation

The Core Group developed and refined essential documents and processes to support the Task Force's objectives. These documents aim to ensure that outputs from the Task Force have a defined audience and scope to guide the development of outputs while ensuring relevant partners are made aware of these activities. This includes developing drafts for a communications plan, bylaws, and Workgroup charters. Recognizing the necessity for structured updates to facilitate intra-organizational communication, the Core Group also created a template for quarterly progress reports encompassing updates from both the Core Group and Workgroups. This effort has streamlined communication channels, enhancing outreach from the Core Group to key partners advising on Workgroup initiatives. This collaborative feedback loop is anticipated to expedite decision-making processes and improve the effectiveness of Workgroup outputs.

CSTE Connect for the ARSTF Community

Significant efforts were made to develop and implement CSTE Connect for the ARSTF Community, a crucial communication tool. The site's initial foundation and organization began in December 2023, including uploading historical documents and sharing information for review and approval from the Core Group. In January, the focus shifted to developing processes for adding new members to the site and ensuring the accuracy of the current member list. By mid-January, the site was shared with Workgroup Co-Leads and members.

Main implementation activities included demonstrating the CSTE Connect site during the Spring Task Force member meeting and monthly Workgroup meetings. Following that meeting, efforts were undertaken to ensure member access (e.g., review rosters and add to fill gaps), migrate existing Workgroup files, and create a guide for ARSTF Community members to use the CSTE Connect space. By mid-March, a "How to Navigate CSTE Connect" guide was provided to help users understand the resources provided in the ARSTF Community and how to save documents, add events, and more.

Support for ARSTF members continued with assistance for accessing the ARSTF Community and continuing to add Workgroup files, including major document iterations and meeting notes for Workgroups, to the site. The platform became a central repository for meeting summaries and recordings, facilitating better communication and collaboration within the Task Force and enhancing the overall transparency and cohesiveness of the Task Force's work.

Task Force Meetings

The Task Force convenes member meetings, and meetings with invited guests, to advance its mission to strengthen AR surveillance in the United States. These meetings allow the Task Force to share updates, engage with subject matter experts, and collaborate with key partners. Member meetings focus on internal discussions among the Core Group and Workgroup Co-Leads and members to strategize and

coordinate efforts. In contrast, meetings with invited guests feature presentations from relevant partners selected to inform and inspire future ARSTF activities, foster collaboration, and provide a platform for partners to offer input on ARSTF activities. Together, these meetings play an important role in shaping the ARSTF's initiatives and enhancing awareness of AR surveillance challenges and potential solutions.

ARSTF Member Meetings (Fall 2023 and Spring 2024)

Two ARSTF member meetings were held in Fall 2023 and Spring 2024. The Fall meeting was held on October 13, 2023, and the Spring meeting was held on March 18, 2024. These provided a forum for the ARSTF Core Group, Workgroup Co-Leads, and members to convene and collaborate. These sessions facilitated updates and discussions between Workgroups and the Core Group and addressed strategic planning objectives. During these meetings, Workgroups were also encouraged to set goals and targets for outputs. The Core Group facilitated these meetings with the goal of building connections and fostering collaboration across Workgroups. The Core Group also used these meetings as opportunities to reinforce the overarching goal of the Task Force, which is to remain responsive to partner needs. There were just over 30 participants in each of these meetings.

Spring 2024 Meeting with Invited Guests

The April 22 meeting featured presentations from invited subject matter experts on topics related to ARSTF's vision. Topics included,

- NHSN AUR Option: Changes in requirements and anticipated outcomes.
- HAI MDRO MMG: Limited uptake – limited data.
- PGCoE: At the forefront of One Health collaboration.

The presentations were selected based on the ARSTF's vision and to help inform or guide future Workgroup activities. Because topics were expected to interest partners beyond the Task Force, the Core Group created an outreach strategy that included ARSTF members, HAI/AR Program Managers, NHSN Leads, State Public Health Veterinarians, and select CDC and AR Lab Network partners. This effort resulted in approximately 165 attendees at the meeting.

2024 CSTE Annual Conference: HAI/AR Sunday Workshop

Throughout the lead-up to the CSTE 2024 Annual Conference, the Core Group and Workgroup Co-Leads were actively involved in planning the afternoon portion of the HAI/AR Sunday Workshop at the CSTE Annual Conference, which was held on Sunday, June 9. The Core Group initiated internal discussions in February for the transition from the standard roundtable discussions to sessions structured within the Sunday HAI/AR Workshop schedule. The close collaboration continued through June, with ongoing support and coordination from the Core Group to finalize preparations.

During the workshop, Co-Leads from the three Workgroups had an opportunity to present updates on current activities. Additionally, subject-matter experts, including members of the ARSTF Core Group, presented topics relevant to the Workgroup's priorities for One Health and Interoperable Linkages. Sessions included the following presentations and presenters:

- One Health Action on AR
    - Andrew Hennenfent, DVM, MPH, DACVPM; ARSTF Workgroup Co-Lead for One Health
    - Annastasia Gross, MPH, MT(ASCP); ARSTF Co-Chair for APHL

- o Melissa Cumming, MS, CIC, LTC-CIP; ARSTF Co-Chair for CSTE
- Harnessing Data to Combat AR
  - o Joseph Gerth, MPH; ARSTF Workgroup Co-Lead for Interoperable Linkages
  - o Hsiu Wu, MD; ARSTF Workgroup Co-Lead for Interoperable Linkages
  - o Virgie Fields, MS, CPH, CIC; Public Health Analyst – NHSN Antimicrobial Use and Resistance Team, Lantana Consulting Group

After these presentations, the Workforce Development Workgroup facilitated participant discussions and gathered input from partners to help identify workforce needs related to AR and Antimicrobial Stewardship (AS). Note: AS workforce needs would not typically be addressed by ARSTF, due to the Task Force's more narrow focus on AR Surveillance, however, this session was part of a larger workshop with broad AR/AS content. ARSTF members were able to contribute with updates related to their AR surveillance work, integrated within this broader AR/AS theme.

- AR/AS Workforce Needs: Discussion Session
  - o Gregory Danyluk, PhD, MPH, MS; ARSTF Workgroup Co-Lead for Workforce Development

These efforts and presentations culminated in successfully executing the afternoon AR surveillance sessions during the Sunday HAI/AR Workshop at the conference.

Next Steps for the Task Force

Interoperable Linkages Workgroup
- Continue to refine and finalize a list of ARSTF-appropriate interventions and next steps for the Workgroup's two remaining focus areas:
  - o Improve interoperability between AR Lab Network regional labs and jurisdictional Health Departments.
  - o Promote NHSN AR Option and AST data suppression best practices, with a focus on addressing data suppression issues and understanding reporting challenges.
- Highlight potential collaborations and partnerships to advance the group's activities, leveraging existing resources and gathering jurisdictional feedback to facilitate the development of best practices documents.

One Health Workgroup
- Aim to finalize the One Health surveillance data and resources crosswalk worksheet draft by the end of 2024.
- Develop end-products utilizing the crosswalk worksheet, to potentially include:
  - o Write-up/white paper/publication on identified data or resource gaps.
  - o Formatted presentation of crosswalk data to serve as a reference to One Health teams.

Workforce Development Workgroup
- Continue vetting the resource document's training list for release to partners.
- Collaborate with the Core Group to continue to identify ongoing partnerships as needed.

Core Group

- Continue to provide support and guidance for the three Workgroups to create valuable outputs and publications.
- Facilitate Task Force discussions and leverage the CSTE HAI subcommittee, when suitable, to help inform the development of Workgroup outputs.
- Promote awareness of ARSTF activities and engage with partners.
- Prepare for anticipated strategic planning activities in the coming year.
- Finalize the development of core Task Force documents, including bylaws, operational guidance, and communications plan.

Task Force Meetings

The Core Group is considering holding two Task Force meetings in 2025. Details for timing and planning will include collaboration and input from Workgroups.

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  - Melissa Cumming (CSTE)
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  - Laura Lane (J Michael Consulting)
  - Lindsay Jordan Pierce (CSTE)
  - Sandra Bulens (CDC)
  - Tracy Stiles (APHL)
  - William Fritch (CSTE)
- ARSTF Workgroup Co-Leads and members
- 2024 CSTE Annual Conference HAI/AR Sunday Workshop Participants

Disclaimer: The information presented in this report does not represent the official views or positions of the ARSTF member organizations (i.e., CDC, CSTE, APHL).