

Report: Meeting of the CDC
Board of Scientific Counselors,
Office of Infectious Diseases
December 10, 2014

Elizabeth M. Marlowe, PhD, D (ABMM)

CLIAC Liaison

April 14-15, 2015

CLIAC Meeting

BSC/OID Meeting (12/10/14) included reports on

- Center and agency priorities, including national strategy to combat antimicrobial resistant bacteria (CARB)
- Enhanced laboratory safety efforts
 - Response to recent laboratory incidents at CDC and other federal agencies
- BSC working groups
 - Antimicrobial Resistance Working Group
 - Food Safety Modernization Act (FSMA) Surveillance Working Group
 - Infectious Disease Laboratory Working Group
- Emerging Severe Viral Respiratory Disease (MERS and Enterovirus D68)
- Updates on the Ebola Outbreak in West Africa
 - Focused discussion: *Issues arising from long-term outbreak response efforts*

Enhanced Laboratory Safety efforts at CDC

- Recruitment for new position of Associate Director for Laboratory Science and Safety
- Establishment of external Laboratory Safety Workgroup of the CDC Advisory Committee to the Director to review biosafety protocols and procedures at CDC, FDA, and NIH
- Establishment of internal Laboratory Safety Improvement Workgroup (LSIW) in July 2014 to provide recommendations for strengthening culture of safety at CDC
 - Actions include:
 - Biological material inventory, moratorium resolution, review of data & reports for laboratory incidents, communications, policies
 - Recommendations for org structure, training/ed, policy/auth/enforc, SOP, facil/sys/software, communication, feedback
 - Protocol submission and review: guidelines & standardization for transfer of material & obj review process
 - Recs for secondary verification of critical safety points, e.g., buddy system, camera, tablets for chklists, centrifugal filtration device, time stamps, programmable & automated eqpmt
 - Communications: intranet website, CDC laboratory list server (>1500 members), lab survey, lab safety articles, updates to stakeholders.
 - LSIW Phase II Progress Plans
 - Expansion of biosafety training: standardized curriculum & content to assess competency
 - Technology for secondary verification, e.g., camera system (35/59 labs), tablets, implementation in-progress

Antimicrobial Resistance Working Group

- Updates

- Combating Antibiotic-Resistant Bacteria (CARB) report released Sept '14 (5yr plan)
- Executive Order est CARB task force & pres advisory council for national action plan
- WG Feedback: Need time-phased measurable outputs to monitor progress of goals, include behavioral aspects of AR prevention into national action plan

- Prizes for AR Dx Tests

- Complimentary US & UK initiatives to award funding for improved, cost effective, rapid Dx
- WG Feedback: Offers signif advances in AR DX & improved Abx use, successful Dx will require: assoc behavioral changes, enhanced and effective communications, long term sustainability w/adequate reimbursement

- Focus Areas

- Lab: Testing gaps in hospitals, periodic surveillance could help IC, detection of colonization could help IC, resistance mechanism testing [best via ref/reg lab]
- Prevention: Geographical data can help drive local prevention efforts, active leadership at state and local PH is critical, public recognition of hospital efforts can be an incentive, channel insight and lessons to emerging AR problems.
- ASP: Est baseline for outpts Abx Tx, convene expert panel, est national goals for reducing outpt Abx, communicate & track progress of goals.

FSMA Surveillance Working Group

- WG Charge: Provide advice & recs to improve foodborne illness surveillance systems in the United States and provide an annual report on activities to HHS Secretary
- 2014 Annual Report to HHS: Key Topics
 - (1) Foodborne Norovirus Enhanced Surveillance
 - Strengthen existing surveillance tools and systems
 - Transmission studies needed
 - Routine testing of food for NoroV not feasible or advisable
 - Need for continued research for disinfectants & vaccines with est efficacy [targeting of risk groups]
 - (2) Enhanced AR surveillance for foodborne illnesses
 - Improving source data sets
 - Link data sets with other relevant data sets (i.e., Pulsenet, Food Net) & environmental health info
 - Increase use of WGS
 - Augment existing collaborations with agencies and other stakeholders

AMD - Infectious Disease Laboratory Working Group

- PH Successes
 - WGS; MERS-CoV in US, Ebola (similar to 1976 strain), EV-D68 PCR developed and pushed to PH Labs
- FY 14
 - Improvement in IT infrastructure, computing storage & power needed, have hardware, need expertise, major sequencing efforts across many areas, partnerships with GA Tech bioinformatics, CDC/APHL bioinformatics fellowship
 - CDC AMD funded projects: 24 [TB, unknown resp disease, MDR Malaria, \$2M to State PH Labs [Listeria WGS project, stool pathogens, cyclospora, unknown resp illness]
 - Intramural funds, renewal of FY-14 projects & '15 projects [Renewal \$8-9M (n=21), incubator \$1M, ready to go \$2-3M)
- Metrics for Success
 - Increases in vol, cost savings to replace traditional methods, Dx value, savings to healthcare system
 - Need to define standardized metrics, funding based on achievable outcomes moving forward
- Outreach & Data sharing
 - “No Petri Dish Challenge” – for partners in industry, fed agency, academics & clinical
 - Data Sharing issues: social & technical: No one solution
- Direction from Lab WG: Yr 1 good start, stay on course, need for long term 5-10 yr plan
- AMD Standardization, QA & QC – WG set up
- Discussion/Gaps/Nxt steps
 - Challenges with translation, need for bioinformatics & meta data, focus on fewer projects (what works)

Program updates

- Enterovirus D68
 - 1st ID 1962
 - In 2014, increased resp illness assoc with EV-D68, other viruses also circulating causing similar illnesses
 - Studies needed to better understand disease burden, for retro & prospective spectrum of illness
- Middle East Respiratory Syndrome Coronavirus (MERS CoV)
 - Spatiotemporal clusters reported (household & HC settings), IC training needed in HC facilities
 - Looking ahead: Seasonality, monitoring of genomic sequences, special populations, vaccines & antivirals
- West Africa Ebola Response
 - CDC response efforts: 600 have been deployed to W. Africa (170 currently deployed), 1800 supported field team, trained >10,000 people
 - Domestic preparedness: exposure risk assessment for returning visitors [5 airports], post arrival monitoring, treatment centers identified in the US with local PH & CDC site visits, live training events
 - Innovations: Improved rapid Dx [head to head study with Biofire EUA Test], improved PPE, vaccine trial [two candidate vaccines under consideration], research agenda
 - Emergency funding for proposed FY-15 budget: \$1.7B

For more detailed information on the Dec 10, 2015 BDC/OID meeting please refer to the meeting minutes:

http://www.cdc.gov/maso/facm/facmBSCNCID_minutes.htm

Thank You

Questions?