

# Update of the BSC Meeting Dec 9-10, 2015

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CLIAC

April 13-14

# Overview of Updates

- Center for Global Health
- National Center for immunization and Respiratory Diseases
- Legionella
- National Center for Emerging and Zoonotic Infectious Diseases
- Infectious Disease Laboratory Working Group
- Food Safety Modernization Act Surveillance working group
- National Center for HIV/AIDs, Viral Hepatitis, STD and TB prevention
- Climate Change
- CDC updates from Dr. Thomas Frieden
- CDC laboratory Safety updates

# Center for Global Health Updates

Dr. Rebecca Martin

- **Ebola**
  - Continued Infection control efforts – Lack of HC access
  - Malaria #1 killer in those < 5 yrs of age
  - Support for Survivors
- **Global Security Agenda**
  - Risk, Opportunities, Priorities
  - Global Rapid Response team (Lessons from Ebola)
  - Working with WHO African member states to establish an Africa-CDC
- **PEPFAR Pivot**
  - Prioritizing support for HIV Tx & Prevention in high burden populations based on – sub-national data to focus resources
- **CHAMPS**: Rebuilding health systems in Ebola infected countries with aim to prevent childhood mortality
  - Data flow important to response
- **Eradication in our lifetime**
  - Malaria
  - Polio

# National Center for immunization and Respiratory Diseases

Dr Rima Khabbaz

- **Recent OB responses**
  - Measles, Legionella, MERS, Ebola, Meningitis, H7N9
- **STRIVE** – Sierra Leone trial to introduce a vaccine against Ebola
  - 7 study sites, Targeting HCW & selected front line workers, randomized to immediate or deferred, Monitored for adverse events, safety & immunogenicity sub-studies
  - Partners: Sierra Leone, US, Merck/NewLink
  - Enrolled 8,680 - studies on-going
- **MenAfriNet: Meningitis Vaccine Efforts**
  - MACV rollout since 2010, epidemics of meningitis continue to threaten the area
  - Data used to demonstrate impact of MACV impact and epidemic response
- **MERS 2015 highlights**
- **Polio Eradication efforts**
  - WPV2 declared eradicated 9/20/15
  - Move toward End Game Strategic plan 2013-18, WHO global action plan, containment
- **Influenza – benefits of Vaccination**
  - Global capacity to monitor and decrease global impact
- **Enhancing Immunization Infrastructure**
  - Immunization Program managers
  - Campaigns [HPV, Adults Immunizations]

# Legionella

Cynthia Whitney, Laura Cooley, Jasen Kunz, Matt Moore & Brian Raphael

- Incident is on the rise
- Sporadic [not assoc with OB], seasonal and geographical differences
- Prevention 3-legged stool: 1) Epidemiology, 2) Environmental, 3) Laboratory
  - Need for environmental and engineering resources
  - Need for evidence for the role of routine testing
  - Need to promote maintenance of potable water systems (ie disinfection)

# Recent Highlights:

## National Center for Emerging and Zoonotic Infectious Diseases

Dr. Beth Bell

- **Food Safety**

- Multistate OB on rise & account for biggest proportion of hospitalizations
- Difficult to detect, investigate and trace to source
- Federal, State/local, HC providers & food industry all play important role
  - Listeria WGS – next generation Pulsenet

- **Stop Spread of Abx Resistance**

- Requires coordinated efforts with healthcare facilities and public health to connect pt safety efforts
- Antibiotic resistance bank launched in June 2015
- Get Smart Week (Nov 16-22, 2015)

- **ePathology**

- Electronic Platform for real time pathology consultation for Dx assistance, reference and training

- **Dengue in Oahu, Hawaii**

- 1<sup>st</sup> cluster of locally acquired dengue fever since 2011
- CDC Support
  - Laboratory confirmed by HADPH
  - Mosquito surveillance on-going (epidemiology and entomology technical assistance)
  - Clinical Training
  - Communications for the public

# AMD Program Priorities & Progress

Dr. Gregory Armstrong, MD

- **Advanced Molecular Detection**

- 5yr, \$30M/yr modernization program
- Focus: Technology for PH [NGS, bioinformatics & related technologies], infrastructure, workforce development, collaboration b/w agencies

- **Program Top Priorities**

- Foodborne diseases, TB [GT & CIDT], Flu, HAI
- Others: Bacterial pathogen WGS [GC, legionella, streptococcus, meningococcus, *B. anthracis*], HCV, dengue, chikungunya, malaria, unexplained respiratory OB, epi data integration

- **Cross Cutting Priorities**

- Infrastructure
  - Data storage, high-performance computing capacity, development of research-grade network, cloud resources
- Workforce development
  - Training, bioinformatics fellowship (need for new skills and talent)

# Infectious Disease Laboratory Working Group Advice on AMD

Jill Taylor, PhD & Susan Sharp, PhD (Co-Chairs)

- **Entering 3<sup>rd</sup> year of funding**
  - Need for Measureable outcomes & Impact [Public Health and Clinical Microbiology]
- **Need for Collaboration and Partnership**
  - Coordination within federal agencies that leverage and not duplicate efforts & focus on CDC mission
  - Database availability for research & Industry
- **Priority Projects**
  - Culture independent testing for enteric's
- **Training**
  - State public health partners [focus on how to interpret data]
  - Long term training for physicians
  - Build on existing networks as models as new ones are built
- **Moving Forward**
  - Long term goal: Precision medicine [integration of genomic data from multiple diverse groups]
  - Where do other technologies fit in?
  - External "Blue Ribbon" review panel with outside experts to focus on technology in the next 5 yrs

# Food Safety Modernization Act Surveillance working group

Dr. Harry Chen

- Recommendations for improvement of foodborne illness surveillance

Focus:

- 1) Engaging industry in surveillance
- 2) Plans proposed by the interagency food safety analytics collaboration workgroup
  - Engagement: Academic, non-academic & food safety centers of excellence
  - Develop peer review or advisory committee
  - Risk assessment consortium
- 3) Recent OB reports & website communications
  - *Shigella sonnei* OB (Feb-Nov 2015)
  - National Antimicrobial Resistance Monitoring System (NARMS) [humans, animals, retail meats]
  - National Outbreak Reporting System (NORS)
  - Food borne Outbreak Online Database (FOOD Tool)

# National Center for HIV/AIDs, Viral Hepatitis, STD and TB prevention

Dr. Jonathan Mermin

- **HIV OB in Indiana**
  - Retesting campaign – High Risk Populations
  - Rapid response with Dx &Tx ended on-going transmission
- **HIV Prevention Program shifts & indicators**
  - Priority interventions with doubling of jurisdiction
  - 2010-14 new HIV Dx decreased 9%
  - 2010-13 less mortality 9% , in persons diagnosed with HIV
  - Disparities remain – young MSM & transgender persons, geographical disparities [Southern US]
  - HIV on-line and mobile app tools
- **Division of Adolescent & School Health**
  - Mobile friendly health youth website [bullying & absenteeism]
  - Sexual health education, risks for different groups of teens
- **Viral Hepatitis**
  - Efforts to Eliminate HBV &HCV
- **STD Surveillance/Prevention**
  - Updated STD Tx Guidelines published [2015]
  - Increases CT (3%), GC (5%) & Syphilis (15%) for first time since 2006 [Syphilis Summit Jan 26-28]
- **Division of TB Elimination**
  - 2014 US TB reported – Decrease in US Tb cases but not as great as would have liked to see
  - New on-line course for clinicians

# Climate Change

Ben Beard, PhD & George Lubar, PhD

- **Evidence for climate change**

- 3<sup>rd</sup> National Climate Assessment Published (2014)
- Key Findings: Temperature increases, Shorter periods of frost, Precipitation changes [wet areas wetter, dry areas drier], Increase in severe events, Sea levels rising & more acidic

- **Health concerns**

- Climate-Sensitive Infectious Diseases ie Rift Valley Fever, WNV & Lyme disease

- **CDC efforts to prepare for health effects and change**

- Climate & Health Program at CDC (est 2009): Provides scientific guidance, Developing decision support tools & Ensuring PH concerns are considered in climate change adaptation and mitigation strategies
- BRACE, Surveillance efforts [TickNET], Training programs, Working groups, Supporting studies

# CDC Updates from Dr. Thomas Frieden

- **Global Health Security**
  - Global rapid response team, Global security network, Infection control programs
  - Ebola- Still responding (>100 staff members in Africa transitioning to stronger system)
- **Antibiotic Resistance - #1 budget priority for 2016**
- **Legionella – Still a lot to learn**
- **HIV- Prevention conference Dec 6 - 9:**
  - Shift from what need to get done to doing it
- **Laboratory Safety** - CDC is the reference laboratory for the world
- **Environmental Health & Infectious Diseases:** Integrating efforts for innovation
- **Increases in STD rates** - Need to understand background [multiple drivers ie social media] before putting forth recommendations
- **Strategic plan for vaccine development**

# CDC Laboratory Safety Updates

Steve Monroe, PhD

Progress continues towards recommendations for laboratory safety

- **Leadership**
  - Dr. Steve Monroe, Associate Director for Laboratory Science & Safety
- **Governance**
  - Establish central entity for accountability & oversight authority for safety & compliance boards
- **Risk Assessment**
  - Establish central, standardized mechanism for consistent & thorough review and risk assessment of proposed research activities
- **Laboratory Safety Training**
  - Establish a standardized lab safety training curriculum with methods for competency skills mapping & refresher training
  - Establish Fellowship program to serve a laboratory safety professionals
  - In-house responsibilities and facilities for laboratory safety training
- **Culture of Safety & Incident Notification**
  - Proactive vs reactive
- **Progress Reporting & Laboratory Accreditation**
  - Pursue external review and accreditation for CDC laboratories

# Updates:

## BSC Teleconference March 28<sup>th</sup>, 2016

- Syphilis Summit, Jan 26-18
- External Review of CDC Division of HIV/AIDS Prevention, March 2-3
- NCIRD, Efforts in Flint, Michigan, Water Crisis
- CDC's Zika Virus OB response
- Priorities for CDC's Antibiotic Resistance Initiative

# Thank You

Questions?